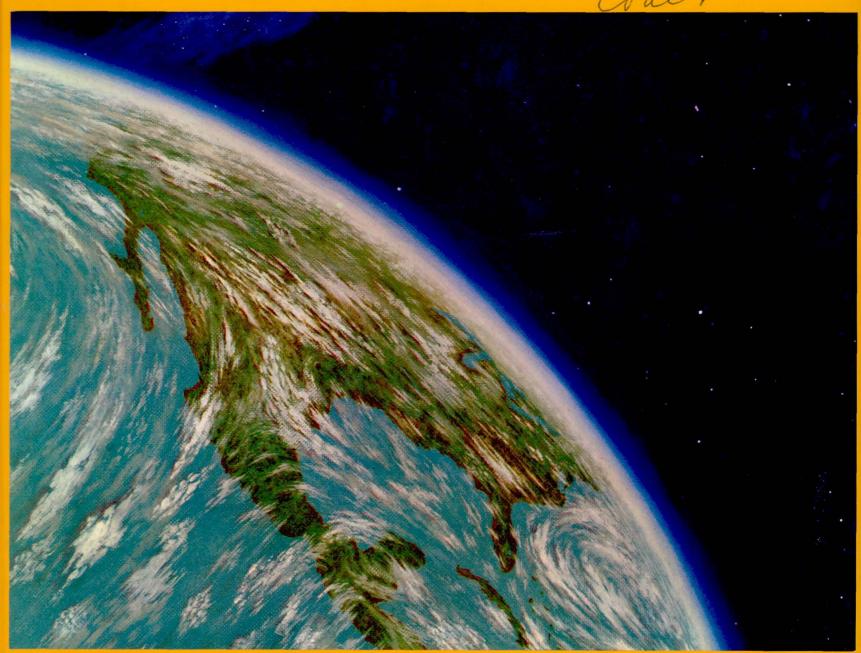
U. S. STANDARD ATMOSPHERE, 1962

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- •ICAO STANDARD ATMOSPHERE TO 20 KM
- PROPOSED EXTENSION TO 32 KM
- TABLES AND DATA TO 700 KM

December 1962 Washington, D.C.

U.S. STANDARD ATMOSPHERE, 1962

PROPOSED ICAO EXTENSION TO 32 KILOMETERS
TABLES AND DATA TO 700 KILOMETERS

Prepared under sponsorship of

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

UNITED STATES AIR FORCE

UNITED STATES WEATHER BUREAU

U.S. STANDARD ATMOSPHERE, 1962

To Harry Wexler

Dr. Harry Wexler, cochairman of the United States Committee on Extension to the Standard Atmosphere and Director of Meteorological Research for the United States Weather Bureau, died on August 11, 1962. Over a period of nearly fifteen years Dr. Wexler led the development and formulation of the United States Standard Atmosphere. This work is respectfully dedicated to him.

Abstract

The U.S. Standard Atmosphere, 1962 is a product of COESA generated under the impetus of increased knowledge of the higher atmosphere and more accurate determinations of basic quantities, such as redefinition of the absolute thermodynamic temperature scale. For all practical purposes the U.S. Standard Atmosphere, 1962 is in agreement with the ICAO Standard over their common altitude range. Background information, including a brief historical statement, is given in the Foreword. The document is arranged in three parts. Part I gives the basis for the main tables of atmospheric properties and contains a full development of gravity and geopotential as well as the basic assumptions, formulas, and derived quantities. In Part II additional information relating to the atmosphere is given, including discussion of systematic variations, observed and inferred extremes, and representations of atmospheric variables as approximate analytic functions of altitude. Part III contains the main tables of atmospheric properties to 700 kilometers calculated in both metric and English units. Throughout the document figures and short tables are introduced to aid in visualizing the variation with altitude of atmospheric parameters and to provide conversions between various units.

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VI	dı	nd speed, coefficient of viscosity, kinematic viscosity, and thermal con- uctivity. English units
VII		potential altitude in meters as a function of pressure in millibars
VIII	m	potential altitude in meters as a function of pressure in millimeters of ercury
IX		potential altitude in feet as a function of pressure in millibars
X	Geo	potential altitude in feet as a function of pressure in inches of mercury

List of Symbols and Abbreviations

```
radius of the earth at the equator
a
            geomagnetic index
a_p
BTU
            British thermal unit
b
            subscript indicating base or reference level; also semiminor axis, or polar radius
^{\circ}C
            degrees, in thermodynamic Celsius scale
C_i
            international magnetic character figure
C_s
            speed of sound
            calorie
cal
            centimeter
cm
°F
            degrees, in thermodynamic Fahrenheit scale
F_{10}
            decimetric solar flux
f
            ellipsoid flattening
ft
            foot
G
            Newton's universal gravitational constant
            acceleration due to gravity
g
g
            gravity force, per unit mass
            gram
gm
H
            geopotential altitude
H_P
            pressure scale height
H_{\rho}
            density scale height
h
            H-H_b
i
            subscript indicating ice-point value
            inch
in.
i.n. mi
            international nautical mile
J
            second zonal harmonic coefficient
°K
            degrees, in thermodynamic Kelvin scale
K_p
            3-hour range index
k
            thermal conductivity
kg
            kilogram (mass)
kg-cal
            kilogram-calorie
kgf
            kilogram (force)
kg-mol
            kilogram-mole
km
            kilometer
kw-hr
            kilowatt hour
L
            mean free path
            molecular-scale temperature geometric gradient, \frac{dT_M}{dZ}
L_{M}
            molecular-scale temperature geopotential gradient, \frac{dT_M}{dH}
L'_{M}
lb
            pound (mass)
lb-mol
            pound-mole (mass)
lbf
            pound (force)
M
            mean molecular weight of air
M
            mass of the earth
            meter
m
mb
            millibar
            meter-kilogram-second system of units
mks
            millimeter
mm
N
            Avogadro's number
```

n	number density; also exponent
0	subscript indicating sea-level value
$\stackrel{\circ}{P}$	pressure
pdl	poundal
°R	degrees, in thermodynamic Rankine scale
R	position vector
R^*	universal gas constant
r	radial distance
S	Sutherland's constant
sec	second
T	temperature in absolute thermodynamic scales
T_{D}	maximum daytime temperature
$T_{\mathfrak{t}}$	ice-point temperature in absolute thermodynamic scales
T_{M}	molecular-scale temperature in absolute thermodynamic scales
T_N	minimum nighttime temperature
t	temperature in nonabsolute thermodynamic scales; also, day of year
t_i	ice-point temperature in nonabsolute thermodynamic scales
	universal measure of magnetic activity
$\frac{u}{\overline{V}}$	particle speed (arithmetic average)
v	mole volume of air under existing conditions of T and P
Z	altitude in geometric measure
β	constant used in Sutherland's viscosity equation
	ratio of specific heats
γ	kinematic viscosity
η	longitude
θ	coefficient of viscosity
μ	
ν	collision frequency mass density
ρ	effective collision diameter of a mean air molecule
σ Φ	geopotential
_	centrifugal potential
Φ_C	
Φ_{G}	potential energy of the gravitational attraction geographic latitude
φ	geographic latitude geocentric latitude
ψ	
ψ'	angular distance from center of diurnal bulge
Ω	angular velocity of the earth
ω	specific weight

Foreword

On March 15, 1962, a revised U.S. Standard Atmosphere to 700 km was adopted by the United States Committee on Extension to the Standard Atmosphere (COESA), representing 29 U.S. scientific and engineering organizations. This committee has also recommended the lower 32 km of this representation of the atmosphere to the International Civil Aviation Organization (ICAO) for international standardization. The lowest 20 km of this new COESA atmosphere coincides with the 20 km Manual of the ICAO Standard Atmosphere, 1954, except for minor differences due to revised standardization of some physical constants.

This report revises and replaces COESA's first report, U.S. Extension to the ICAO Standard Atmosphere—Tables and Data to 300 Standard Geopotential Kilometers, 1958 (ref. 1).

The U.S. Air Force, the National Aeronautics and Space Administration, and the U.S. Weather Bureau cosponsored the movement which led to this new representation of the atmosphere. Participating organizations included:

Aeronautical Systems Division, AFSC

Air Force Deputy Commander Aerospace Systems, AFSC

Air Weather Service, USAF

Applied Physics Laboratory, The Johns Hopkins University

Army Ballistic Missile Agency

Army Signal Research and Development Laboratory

Ballistic Research Laboratories (Aberdeen Proving Ground)

Battelle Memorial Institute

The Boeing Company

Federal Aviation Agency

General Dynamics/Astronautics

Geophysics Corporation of America

Geophysics Research Directorate, AFCRL

Goddard Space Flight Center, NASA

Harvard College and Smithsonian Institution Astrophysical Observatories

High Altitude Engineering Laboratory, University of Michigan

Jet Propulsion Laboratory, California Institute of Technology

Langley Research Center, NASA

Lockheed Missiles and Space Company

George C. Marshall Space Flight Center, NASA

NASA Headquarters

National Bureau of Standards, Department of Commerce

Naval Proving Grounds

Naval Research Laboratory

Navy Weather Research Facility

The Rand Corporation

Space Technology Laboratories, Inc.

United States Weather Bureau, Department of Commerce

White Sands Missile Range

COESA is a group of scientific and engineering organizations, each holding national responsibilities related to the requirement for accurate tables of the atmosphere to high altitudes. After they joined forces to develop such an atmosphere in November 1953, several new organizations were added to the ranks. A working group, appointed at the first meeting, met frequently between 1953 and the end of 1956. Their recommendations, which were accepted by the entire committee, were published in 1958 (ref. 1).

Scientific progress quickly rendered this 1958 document obsolete, since orbital periods of the first Sputnik indicated that densities at the upper altitudes were in error by more than an order

of magnitude. The Working Group was reestablished in January 1960 to review all available satellite and rocket data as related to the COESA tables and to consider the need for revision. For the next year, the Working Group studied new data and theories from more refined satellite flights. The information obtained from the early USSR satellites was insufficient for the purpose because the USSR aerodynamic configurations were not made known and the data covered only the lower altitude range of satellite orbits. A few years of observations at satellite altitudes were also required to understand the effects of solar activity and position. The United States satellites provided the necessary extreme-altitude data. Additional rocket flights provided needed detail for levels above those of balloon flights. The COESA Working Group prepared a recommendation from this new scientific inventory which was accepted by the entire committee. Active Working Group participants included:

*Dr. Luigi Jacchia, Smithsonian Institution Astrophysical Observatory, Chairman

Mr. Norman Sissenwine, AFCRL, Executive Secretary

Mr. Herbert Appleman, Air Weather Service

Dr. H. J. aufm Kampe, USA Signal Corps, R & D Laboratory

*†Dr. K. S. W. Champion, AFCRL

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Mr. Walter C. Conover, USA Signal Corps, R & D Laboratory

Dr. Arnold Court, AFCRL

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Lt. Col. J. C. Glover, Air Weather Service

Mr. R. K. Hankey, ASD, Wright-Patterson AFB

*Mr. Richard A. Hord, Langley Research Center, NASA

Dr. D. P. Johnson, National Bureau of Standards

Dr. F. S. Johnson, Lockheed Missile Systems Division

Mr. Leslie M. Jones, University of Michigan

Dr. H. K. Kallmann-Bijl, The Rand Corporation

Dr. W. W. Kellogg, The Rand Corporation

Mr. Herman LaGow, Goddard Space Flight Center, NASA

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†Mr. Sidney Teweles, U.S. Weather Bureau

Dr. Harry Wexler, U.S. Weather Bureau

This revised *U.S. Standard Atmosphere*, 1962 depicts idealized middle-latitude year-round mean conditions for the range of solar activity that occurs between sunspot minimum and sunspot maximum. Part I gives the basis for the tables appearing in Part III. Supplemental presentations provided in Part II indicate the variability of density above 200 km with solar position and activity. For lower altitudes they indicate the range of seasonal and day-to-day variability that can be deduced from the available data.

Although density is the primary atmospheric property measured at or deduced for very high altitudes, it is necessary to define the atmosphere in terms of temperature, in order to achieve continuity between the ICAO atmosphere and its extension. The application of molecular-scale temperature segments at higher altitudes yields densities which are consistent with observed densities. Table I.4(a) is the basic framework for the tables of the U.S. Standard Atmosphere, 1962.

The new U.S. Standard Atmosphere, 1962 agrees in general with but differs in detail from the Committee on Space Research (COSPAR) International Reference Atmosphere, CIRA 1961. CIRA 1961 is not in agreement with the ICAO Standard Atmosphere. The U.S. Standard Atmosphere, 1962 provides detail and more parameters than CIRA 1961, and includes refinements in matching the data that were not possible in the earlier COSPAR atmosphere.

†Editor.

^{*}Contributor to Part II.

Close contact between COSPAR and COESA has reduced discrepancies between the two atmospheres to a minimum.

On the basis of information provided by the COESA Working Group, this document was prepared by personnel of the NASA Langley Research Center, notably: Dr. John E. Duberg, Mr. William J. O'Sullivan, Jr., Mr. Richard A. Hord, Dr. S. L. Seaton, and Mr. James A. Mullins, who wrote and revised the manuscript; Miss Vera Huckel and Miss Jean Mason, who did the checking and curve-fitting; and Mr. Roger Butler and Miss Lillian Boney, who wrote the machine programs for computation of the tables.

The cochairmen would like to take this opportunity to thank the many Working Group scientists and engineers who contributed unselfishly of their time and energies to bring this new representation of the atmosphere into being. Our special thanks and that of all organizations of the committee go to the individuals who prepared and edited this report.

Maurice Dubin, NASA Norman Sissenwine, USAF Harry Wexler, USWB

Cochairmen, U.S. Committee on Extension to the Standard Atmosphere

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PART I

Basis of the Tables

PART I

Basis of the Tables

I.O INTRODUCTION

Part I gives the basis for computation of the main tables of atmospheric properties that appear in Part III. Also included in Part I are short tables of physical constants, conversion factors, and defining properties used in the computations.

I.1 BACKGROUND

The modern standard atmosphere was first developed in the 1920's in the United States and in Europe to satisfy a need for standardization of aircraft instruments and aircraft performance. The United States standard atmosphere was generated by the National Advisory Committee for Aeronautics (NACA) while the European standard atmosphere was produced by the International Commission for Aerial Navigation (ICAN). There were slight differences between the independently developed ICAN and NACA atmospheres. These differences were reconciled and international uniformity was achieved through adoption by the International Civil Aviation Organization (ICAO), on November 7, 1952, of a new standard atmosphere. This new standard was officially accepted by NACA on November 20, 1952, and forms the basis for tables published in NACA Report 1235 (ref. 2). The computations for these tables were carried out by the United States. Parts of the tables were independently computed by the Italian government. Conversions from metric to English units were made in accordance with internationally adopted conversion factors. The tables extended over an altitude range from 5 km below to 20 km above mean sea level.

Shortly after this first international standard atmosphere was published, a need began to be apparent for extension of the tables to greater altitudes. The U.S. Committee on Extension to the Standard Atmosphere (COESA) was organized in 1953, and adopted in 1956 the U.S. Extension to the ICAO Standard Atmosphere (ref. 1) including tables, developed from theory, extending to an altitude of 300 geopotential kilometers.

At about this same time, reliable instrumentation of rockets and satellites made possible experimental determinations of important atmospheric properties to altitudes of the order of 1,000 kilometers. This new information so added to the fund of knowledge that in January 1961 a new Working Group of COESA was convened for the purpose of developing a new standard atmosphere.

In order to obtain the best scope and in order to achieve the purpose in minimum time, task groups were formed to lay the foundation for this standard atmosphere. Membership of these task groups was as follows:

Task Group I—Surface to 90 km
Arnold Court (Convener)
K. S. W. Champion
Luigi Jacchia
Raymond A. Minzner
Harold B. Tolefson (Liaison)
Lester M. Jones (Adviser)
William Nordberg (Adviser)

Task Group II—90 km to 200 km
Herman E. LaGow (Convener)
Nelson W. Spencer
Raymond A. Minzner
K. S. W. Champion
Philip W. Mange
Richard A. Hord (Liaison)

Task Group III—200 km to 700 km
H. K. Kallmann-Bijl (Convener)
Luigi Jacchia
F. S. Johnson
K. S. W. Champion
John E. Duberg (Liaison)

Task Group IV—90 km to 700 km

Herman E. LaGow (Convener)

K. S. W. Champion

F. S. Johnson

H. K. Kallmann-Bijl

Philip W. Mange

Raymond A. Minzner

The purpose, then, of this U.S. Standard Atmosphere, 1962 is to take account of increased knowledge and more accurate determinations of basic quantities, including the redefinition of the absolute thermodynamic temperature scale by the Tenth General Conference on Weights and Measures in 1954. For all practical purposes, the U.S. Standard Atmosphere, 1962 is in agreement with the ICAO Standard Atmosphere over their common altitude range.

The U.S. Standard Atmosphere, 1962 is divided into four altitude regions. The first, from -5 to +20 km (geopotential altitude), is designated standard. A second region, from 20 to 32 km (geopotential altitude), is designated proposed standard. Next, the region from 32 km (geopotential altitude) to 90 km (geometric altitude) is called tentative, and last, that portion from 90 to 700 km (geometric altitude) is termed speculative.

Expressions for the variation with altitude of the acceleration due to gravity have been reexamined by COESA and are discussed in section I.2.4.

In extending the U.S. Standard Atmosphere to 700 km, and in light of the designations attached to various height intervals (implying increasing uncertainty with increasing height), there is included a discussion of variability and extremes of data in order to give those using this standard an appreciation of such excursions from the standard as may be met in practice. Fundamentally, the U.S. Standard Atmosphere, 1962 is defined in terms of an ideal air assumed to be devoid of moisture, water vapor, and dust, and obeying the perfect gas law. It is based upon accepted standard values of the sea-level air density, temperature, and pressure.

For most purposes, the adoption of a sequence of connected linear segments involving variations of molecular-scale temperature with altitude to represent standard conditions is satisfactory and is retained here. However, there is added, for those needing a smoothed change of molecular-scale temperature with altitude, a section dealing with approximate analytic expressions for the molecular-scale temperature and other variables.

The bulk of this volume is devoted to tabulated values of atmospheric properties. It is especially to be noted that up to 90 km entry is made to the tables in terms of geopotential altitude on the left-hand pages, while on right-hand pages entry is made in terms of geometric altitude. Above 90 km entry is made in geometric altitude only.

Metric tables appear first, followed by similar tables in English units. It is also to be noted that at the 90-km level, tabular entry of certain quantities is terminated for technical reasons discussed in the text. In the following paragraphs basic concepts and formulas are developed first, followed by relationships between variables and then by derived quantities. Graphs illustrative of the functions appear in the body of the text near the equations in order to facilitate visualization of the behavior of the quantities. Units and conversion factors are arranged in convenient tables.

1.2 BASIC ASSUMPTIONS AND FORMULAS

I.2.1 Primary constants.—For purposes of computation it is necessary to establish numerical values for various constants appropriate to the

earth's atmosphere. In some instances the best value of the constant is known to greater accuracy than needed in atmospheric tables, and thus, rounding to a suitable value is appropriate. Table I.2.1 gives numerical values adopted as exact for the computations contained herein.

Discussion of these tabular values is as follows:

- P_0 Sea-level pressure is, by definition, 1.013250 $\times 10^5$ newtons m⁻². This corresponds to the pressure exerted by a column of mercury 0.760 m high, having a density of 1.35951×10^4 kg m⁻³ and subject to an acceleration due to gravity of 9.80665 m sec⁻².
- ρ_0, t_0 Sea-level density and temperature, respectively, are those values published in the ICAO Standard Atmosphere.
- g_0 The value for g_0 , sea-level acceleration due to gravity, was adopted by the ICAO for the ICAO Standard Atmosphere and is adopted here as the value at exactly 45° geographic latitude.
- S,β Sutherland's constant S and β, also a constant, are used in Sutherland's viscosity equation. These constants are determined from empirical data on the viscosity of air (ref. 3) in accordance with Sutherland's equation, and in general engineering practice the values shown in table I.2.1 are used.
- Temperature of the ice point is 273.15° K.

 This value results from the decision in October 1954 by the Tenth General Conference on Weights and Measures, meeting in Paris, France, to redefine the temperature scale by selecting the triple point of water as the fundamental, fixed point and assigning it the temperature 273.16° K (0.01° C).
- γ The ratio of the specific heat of air at constant pressure to the specific heat of air at constant volume is adopted as 1.40 (dimensionless).
- The mean collision diameter for air is assumed to be a constant for all altitudes (ref. 4).
- N Avogadro's number based on the scale C¹²=12.0000. (The International Union of Pure and Applied Chemistry, meeting in Montreal in 1961, adopted a new table of atomic weights based on the assignment of atomic weight 12.0000 to the C¹² isotope.)
- R* The value of R* adopted here is that given in reference 5 when the latter is corrected for the aforementioned change in the atomic-weight scale.

TABLE I.2.1.—ADOPTED PRIMARY CONSTANTS

Symbol	Metric units (mks)	English units (ft-lb-sec)
P_0	1.013250×10^5 newtons m ⁻²	$2116.22 \mathrm{lbf} \mathrm{ft}^{-2}$
ρ_0	1.2250 kg m ⁻³	$0.076474 \text{ lb ft}^{-3}$
t_0	15° C	59.0° F
g_0	9.80665 m sec ⁻²	$32.1741 \; \mathrm{ft \; sec^{-2}}$
S	110.4° K	198.72° R
T_i	273.15° K	491.67° R
β	$1.458 \times 10^{-6} \text{ kg sec}^{-1}\text{m}^{-1}(^{\circ}\text{K})^{-1/2}$	$7.3025 \times 10^{-7} \text{ lb ft}^{-1} \text{sec}^{-1} (^{\circ}\text{R})^{-1/2}$
γ	1.40 (dimensionless)	1.40 (dimensionless)
σ	$3.65 \times 10^{-10} \text{ m}$	$1.1975 \times 10^{-9} \text{ ft}$
N	6.02257×10 ²⁶ (kg-mol) ⁻¹	$2.73179 \times 10^{26} \text{ (lb-mol)}^{-1}$
R^*	8.31432 joules (°K) ⁻¹ mol ⁻¹	1545.31 ft lb (lb-mol) ⁻¹ (°R) ⁻¹

Conversion factors between the English and mks systems, in accordance with an agreement reached by the directors of the standards laboratories of six English-speaking nations, effective July 1, 1959, are (from ref. 6):

1 ft=0.3048 meter (exact) 1 lb=0.45359237 kg (exact)

I.2.2 The perfect gas law.—The equation of state of a perfect gas (the perfect gas law) and the hydrostatic equation (see section I.2.3) are convenient starting points in the development of the expressions and relationships necessary to realization of tables of values descriptive of the earth's atmosphere.

The equation of state of a perfect gas is (from ref. 7):

$$\rho = \frac{MP}{R^*T}$$
 I.2.2-(1)

wherein P is the atmospheric pressure, ρ is the air density, R^* is the universal gas constant, and T is the absolute temperature. It is to be noted that M, the mean molecular weight of air, is assumed to be constant up to an altitude of 90 km, while above this altitude M varies because of increasing dissociation and diffusive separation.

I.2.3 The hydrostatic equation.—In adopting the hydrostatic equation it is assumed that the atmosphere is static with respect to the earth. The equation in appropriate form is:

$$dP = -\rho g \ dZ$$
 I.2.3-(1)

The acceleration due to gravity g and the geometric altitude Z are discussed in detail in later sections of the document.

I.2.4 Gravity.—Viewed in the ordinary manner, from a frame of reference fixed in the earth, the atmosphere is subject to the force of gravity. The force of gravity is the resultant (vector sum) of two forces: (a) the gravitational attraction, in accordance with Newton's universal law of gravitation, and (b)

the centrifugal force, which results from the choice of an earthbound, rotating frame of reference.

The gravity field, being a conservative force field, can conveniently be derived from the gravity potential energy, per unit mass—that is, from the geopotential Φ . This is given by

$$\Phi = \Phi_G + \Phi_C$$
 I.2.4-(1)

where Φ_G is the potential energy, per unit mass, of the gravitational attraction, and Φ_C is the potential energy, per unit mass, associated with the centrifugal force. The gravity force, per unit mass, is

$$\mathbf{g} = -\nabla \Phi$$
 I.2.4-(2)

where $\nabla \Phi$ is the gradient (ascendant) of the geopotential. The acceleration due to gravity is denoted by g and is defined as the magnitude of g; that is,

$$g = |\mathbf{g}| = |\nabla \Phi|$$
 I.2.4-(3)

The gravity field is conveniently represented by its equipotential (level) surfaces, on each of which the geopotential Φ is constant, the surfaces being pierced orthogonally by curves called the lines of gravity force. At each point on a line of force, the tangent has the direction of the corresponding gravity force vector \mathbf{g} .

In this document the geometric altitude Z of a point is defined as the distance, measured along the line of force through the point, from the equipotential surface for which $\Phi=0$ to the point in question, the surface for which $\Phi=0$ corresponding closely to mean sea level. (The slight differences between geometric altitude as defined here and several straight-line distances, shown schematically in fig. I.2.4(a), are negligible, for most practical purposes, in the altitude range considered herein.) With this definition, the differential relation of the geometric altitude Z and the geopotential Φ is

$$d\Phi = g \ dZ \qquad \qquad \text{I.2.4-(4)}$$

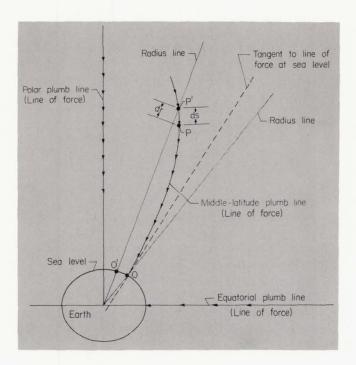


FIGURE I.2.4(a).—Relationships between various heights.

which is the incremental work done in lifting a unit mass a distance dZ against the gravity force. Therefore, the geopotential at a point whose altitude is Z is given by

$$\Phi = \int_0^z g \ dZ \qquad \qquad \text{I.2.4-(5)}$$

where the integration is performed along the line of force which passes through the point. (The general equation for the difference between the geopotential at points A and B is:

$$\Phi_B - \Phi_A = \int_A^B \mathbf{g} \cdot d\mathbf{R}$$
 I.2.4-(6)

where the line integral on the right-hand side is independent of the path and ${\bf R}$ is the position vector of a point on the path.)

The centrifugal potential Φ_c can be expressed as

$$\Phi_C = \frac{1}{2}\Omega^2 [a^2 - (r\cos\psi)^2]$$
 I.2.4-(7)

where Ω is the angular velocity of the earth and $r\cos\psi$ is the distance, measured perpendicularly to the earth's axis, from this axis to the point (r, θ, ψ) . The spherical coordinates r, θ , and ψ are, respectively, the radial distance from the earth's center, the longitude, and the geocentric latitude (the angle that the radius vector makes with the equatorial plane of the earth). In equation I.2.4–(7), the constant a denotes the equatorial radius of the earth.

The gravitational potential Φ_G can be expanded in an infinite series of spherical harmonics. When the less important terms in this series are discarded, the expression for Φ_G becomes

$$\Phi_{G} = -\frac{G\underline{M}}{r} \left[1 - \frac{J}{3} \left(\frac{a}{r} \right)^{2} \left(3 \sin^{2} \psi - 1 \right) \right] + \frac{G\underline{M}}{a} \left(1 + \frac{J}{3} \right)$$

$$I.2.4 - (8)$$

where G is Newton's universal gravitational constant, \underline{M} is the mass of the earth, and J is the second harmonic coefficient.

Equations I.2.4–(1), -(2), -(3), -(7), and -(8) define the gravity field of the earth for the purposes of this document. The adopted geopotential Φ is independent of the longitude θ . Therefore, the defined gravity field is axially symmetric. Moreover, each line of force lies entirely in a meridian half-plane, θ =Constant, and has the differential equation

$$r\frac{d\psi}{dr} = \frac{\frac{1}{r}\frac{\partial\Phi}{\partial\psi}}{\frac{\partial\Phi}{\partial r}}$$
 I.2.4-(9)

The gravity line of force passing through the point for which $\Phi=0$ and $g=g_0$ is the curve along which the present standard atmosphere is postulated. It is possible to select the value of the constant GM (see eq. I.2.4–(8)) well within the present limits of measurement and in such a way that the point for which $\Phi=0$ and $g=g_0$ corresponds precisely to the geographic latitude $\phi=45^{\circ}$ (geocentric latitude $\psi=44.808^{\circ}$); this has been done with the use of selected average values for J and a (see ref. 8):

$$J = 1.623495 \times 10^{-3}$$
 (dimensionless) I.2.4-(10)

$$a = 6,378,178 \text{ meters}$$
 I.2.4-(11)

The corresponding value of GM is

$$GM = 3.9862216 \times 10^{14} \text{ meters}^3 \text{ sec}^{-2}$$
 I.2.4–(12)

For the accuracy required in this document, it suffices to treat the surface $\Phi=0$ as an ellipsoid whose flattening (ellipticity) is

$$f=1-\frac{b}{a}=\frac{1}{298.32}$$
 I.2.4-(13)

where b is the semiminor axis, or polar radius. It should be noted that this value of the flattening is the average value given in reference 8. In terms of a and b, the values r_0 and ψ_0 which correspond to sea level and $\phi=45^{\circ}$ are found from the analytic geometry of the ellipse to be:

$$r_0^2 = \frac{a^4 + b^4}{a^2 + b^2}$$
 I.2.4–(14)

$$\tan \psi_0 = \frac{b^2}{a^2}$$
 I.2.4-(15)

Approximations, sufficiently accurate for the computations required herein, are developed in the following paragraphs for the equations of the line of gravity force and the acceleration due to gravity (see ref. 9).

Since the geopotential as approximated here is independent of the longitude angle θ , the binomial series can be used to write the following expanded form of equation I.2.4–(3):

$$g = |\nabla \Phi| = \sqrt{\left(\frac{\partial \Phi}{\partial r}\right)^2 + \left(\frac{1}{r} \frac{\partial \Phi}{\partial \psi}\right)^2}$$
$$= \frac{\partial \Phi}{\partial r} \left[1 + \frac{1}{2} \left(\frac{1}{r} \frac{\partial \Phi/\partial \psi}{\partial \Phi/\partial r}\right)^2 + \dots \right] \quad I.2.4-(16)$$

It is sufficiently accurate to retain only the first two terms in the series in brackets and replace $(\partial \Phi/\partial r)^2$ in the denominator of the second term by $(GM/a^2)^2$. The resulting approximate form for equation I.2.4–(16) is

$$g = \left\{ \frac{G\underline{M}}{r^2} \left[1 - J \left(\frac{a}{r} \right)^2 \left(3 \sin^2 \psi - 1 \right) \right] - r\Omega^2 \cos^2 \psi \right\} \left[1 + \frac{1}{2} \frac{1}{r^2} \left(\frac{a^2}{G\underline{M}} \right)^2 \left(\frac{2G\underline{M}Ja^2}{r^3} + \Omega^2 r^2 \right)^2 \right]$$

$$\left(\sin \psi \cos \psi \right)^2 \left[1.2.4 - (17) \right]$$

Simultaneous numerical integrations of equation I.2.4-(9) and the equation

$$dZ = \sqrt{(dr)^2 + (r d\psi)^2}$$
 I.2.4-(18)

have revealed that the following linear approximations are adequate for present purposes:

$$\psi = \psi_0 + \left(\frac{d\psi}{dr}\right)_0 (r - r_0)$$
 I.2.4-(19)

$$r=r_0+\frac{Z}{\left(\frac{dZ}{dr}\right)_0}=r_0+\frac{Z}{\sqrt{1+r_0^2(d\psi/dr)_0^2}}$$
 I.2.4-(20)

With the use of equations I.2.4-(19) and I.2.4-(20) to replace r and ψ by linear functions of Z, equation I.2.4-(17) yields an approximate equation for the acceleration due to gravity as a function of the geometric altitude (shown graphically in fig. I.2.4(b)).

I.2.5 GEOPOTENTIAL.—In accordance with the equation I.2.4–(5) relating the geometric altitude Z to the geopotential Φ , the following equation is used to define the geopotential altitude H:

$$H = \frac{1}{g_0} \Phi = \int_0^z \frac{g}{g_0} dZ$$
 I.2.5-(1)

Here, g_0 denotes the standard sea-level value of the acceleration due to gravity. As in the case of equa-

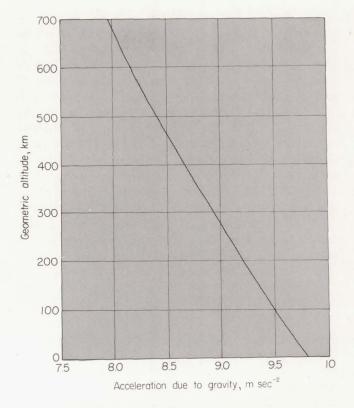


Figure I.2.4(b).—Acceleration due to gravity g as a function of geometric altitude Z.

tion I.2.4-(5), the integration in equation I.2.5-(1) is performed along the line of force which passes through the point in question. (The geopotential altitude as defined in eq. I.2.5-(1) has the dimensions of length and is numerically equal to the corresponding geopotential altitude measured in "geopotential length" units (for example, "standard geopotential meter," symbol m', where 1 m'=9.80665 m² sec⁻²). The quantity H is physically equivalent to Φ , which is the work done in elevating unit mass from sea level to (geometric) altitude Z. The definition of H given above is not the conventional meteorological one in which g_0 in eq. I.2.5-(1) would be taken as dimensionless and H would have the dimensions of (Length)² (Time)-2, that is, "geopotential length." The definition adopted here avoids the confusing feature of dividing the geopotential Φ by a dimensionless number whose value changes when the system of units is changed. For meteorological usage, the column labels H, m and H, ft in the tables of Part III can be read H', m' and H', ft', respectively, where the primed units refer to standard geopotential meters and feet, respectively, and H' is the geopotential altitude in the meteorological sense. For further discussion of geopotential altitude, see ref. 10.)

It is important to realize that the distance measured in physical length (as with a meter bar) between successive geopotential surfaces 1 geopotential unit apart is not constant, but increases in physical distance with increasing elevation.

The meaning of geometric altitude Z and of geopotential altitude H can be seen by reference to figure I.2.4(a). If an elementary plumb line is used to explore gravity and if this plumb line is rotating with the earth, then, starting at point O and proceeding outward, the little plumb line will mark out line segments which progress along the curved path OP. Under the influence of gravitational and centrifugal forces this line OP will bend polewards as it rises except along the axis of rotation of the earth and along an equatorial radius extended. In figure I.2.4(a), the arc length ds measured along the line of gravity force from P to P' is identical with the increment dZ in geometric altitude as defined in section I.2.4. That is, the geometric altitude Z is the physical distance along the line OP. Since

$$dH = \frac{g}{g_0} dZ \qquad \qquad \text{I.2.5-(2)}$$

then, clearly, the geopotential altitude is measured also along the line OP but differs in numerical value because of the variation of the acceleration due to gravity.

It is to be noted that the scale in figure I.2.4(a) is exaggerated in order to show the nature of the curvature of the middle-latitude plumb line (line of force) and to show clearly the relationship between tangent line, radius line, and projections.

I.2.6 MOLECULAR-SCALE TEMPERATURE.—The molecular-scale temperature T_M is defined by

$$T_{M} = \frac{M_{0}}{M} T$$
 I.2.6-(1)

Molecular-scale temperature is the defining property in this atmosphere and, up to geometric altitude $Z=90\,$ km, the molecular-weight ratio $M/M_0=1$ and hence $T_M=T$. Above 90 km, M/M_0 is less than unity and hence T_M is greater than T. (See figs. I.2.6(a) and I.2.6(b) for variation of T_M with altitude.)

The molecular-scale temperature variation is defined as a series of connected segments linear in geopotential altitude to Z=90 km, and linear in geometric altitude above 90 km. The general form of each linear segment is:

$$T_M = T_{M,b} + L'_M(H - H_b)$$
 I.2.6-(2)

to 90 km, and

$$T_M = T_{M,b} + L_M(Z - Z_b)$$
 I.2.6-(3)

above 90 km

It is to be noted that L'_M is the gradient of molecular-scale temperature with geopotential altitude $\frac{dT_M}{dH}$, and L_M is the gradient of molecular-scale

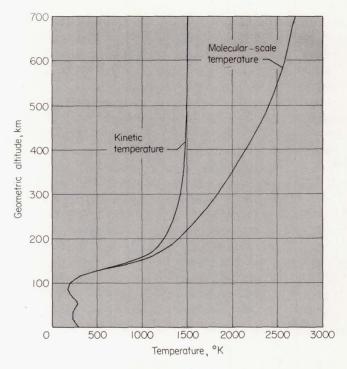


Figure I.2.6(a).—Molecular-scale temperature T_M and kinetic temperature T as functions of geometric altitude Z.

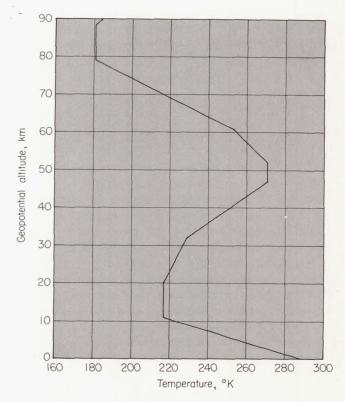


FIGURE I.2.6(b).—Temperature T as a function of geopotential altitude H. ($T_M = T$ below Z = 90 km or H = 88.743 km.)

temperature with geometric altitude $\frac{dT_M}{dZ}$. The quantity H_b is the geopotential altitude at the base of a particular layer characterized by a specific

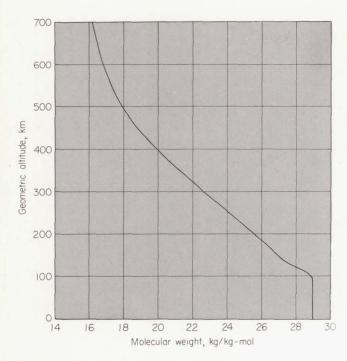


Figure I.2.7.—Molecular weight M as a function of geometric altitude Z.

value of L'_{M} , while $T_{M,b}$ is the value of T_{M} at altitude H_{b} or Z_{b} , as appropriate. At and above 90 km, Z_{b} , the geometric altitude at the base of a particular layer characterized by a specific value of L_{M} , is used in place of H_{b} . The defining base values and gradients are given in table I.4(e).

It is again emphasized that for altitudes up to 90 km the tables are arranged for entry in terms of

geopotential altitude H on left-hand pages, while on right-hand pages entry is made in terms of geometric altitude Z. Above 90 km the tables are arranged for entry in geometric altitude only.

I.2.7 Molecular weight.—Up to Z=90 km the molecular weight M is taken as constant at 28.9644 (scale: $C^{12}=12.0000$; see section I.2.1 for further discussion of this atomic-weight scale). This value of M is, to six significant figures, the sea-level value M_0 found from the perfect-gas law (eq. I.2.2-(1)) and the adopted values of P_0 , ρ_0 , t_0 , and R^* (see table I.2.1). The value 28.9644 is equivalent to the value 28.966 (scale: oxygen=16) adopted in resolution 164 of the International Meteorological Organization Twelfth Conference of Directors, 1948, and is equal, to six significant figures, to the mean molecular weight of air calculated from the composition of dry air as given in table I.2.7. Table I.2.7 is taken from reference 11 except for minor modifications based upon recent CO₂ measurements. (See, for example, ref. 12.)

Above 90 km, mainly because of molecular dissociation and diffusive separation, the molecular weight changes as depicted in figure I.2.7. A very limited amount of experimental data about molecular weight is presently available above an altitude of 90 km. The tabulated molecular weights have been calculated from polynomials fitted to the values given in reference 13.

I.2.8 Sea-level properties.—Since mean sea level is the zero-altitude reference point in the computations, it is convenient to present numerical values for this reference point. These values are given in table I.2.8.

Table I.2.7.—Normal composition of clean, dry atmospheric air near sea level

Constituent gas and formula	Content, percent by volume	Content variable relative to its normal	Molecular weight*
Nitrogen (N ₂)	78. 084	_	28. 0134
Oxygen (O2)	20. 9476	_	31. 9988
Argon (Ar)	0. 934	-	39. 948
Carbon dioxide (CO ₂)	0. 0314	†	44. 00995
Neon (Ne)	0. 001818	_	20. 183
Helium (He)	0. 000524	_	4. 0026
Krypton (Kr)	0. 000114	_	83. 80
Xenon (Xe)	0. 0000087	-	131. 30
Hydrogen (H ₂)	0. 00005	?	2. 01594
Methane (CH ₄)	0. 0002	†	16. 04303
Nitrous oxide (N2O)	0. 00005		44. 0128
Ozone (O ₃)	Summer: 0 to 0. 000007	†	47. 9982
	Winter: 0 to 0. 000002	†	47. 9982
Sulfur dioxide (SO ₂)	0 to 0. 0001	†	64. 0628
Nitrogen dioxide (NO ₂)	0 to 0. 000002	†	46.0055
Ammonia (NH ₃)	0 to trace	†	17. 03061
Carbon monoxide (CO)	0 to trace	†	28. 01055
Iodine (I ₂)	0 to 0. 000001	†	253, 8088

^{*}On basis of carbon-12 isotope scale for which C¹²=12. †The content of the gases marked with a dagger may undergo significant variations from time to time or from place to place *relative* to the normal indicated for those gases.

TABLE I.2.8.—SEA-LEVEL VALUES OF ATMOSPHERIC PROPERTIES

Symbol	Metric	English	
$C_{s,0}$	$340.294 \mathrm{\ m\ sec^{-1}}$	$1116.45 \; \mathrm{ft \; sec^{-1}}$	
*90	$9.80665 \text{ m sec}^{-2}$	32.1741 ft sec ⁻²	
$H_{\mathrm{P},0}$	8434.5 m	27,672 ft	
k_0	$6.0530 \times 10^{-6} \text{ kg-cal m}^{-1} \text{ sec}^{-1}(^{\circ}\text{K})^{-1}$	$4.0674 \times 10^{-6} \text{ BTU ft}^{-1} \text{ sec}^{-1}(^{\circ}\text{R})^{-1}$	
L_0 6.6328 \times 10 ⁻⁸ m		$2.1761 \times 10^{-7} \text{ ft}$	
M_0	28.9644 (dimensionless)	28.9644 (dimensionless)	
n_0	$2.5471 \times 10^{25} \text{ m}^{-3}$	$7.2127 \times 10^{23} \text{ ft}^{-3}$	
* P_0 1.013250×10 ⁵ newtons m ⁻²		2116.22 lbf ft ⁻²	
$*T_0$ 288.15° K		518.67° R	
\overline{V}_0	$458.94 \text{ m sec}^{-1}$	$1505.7 \text{ ft sec}^{-1}$	
70	$1.4607 \times 10^{-5} \text{ m}^2 \text{ sec}^{-1}$	$1.5723 \times 10^{-4} \text{ ft}^2 \text{ sec}^{-1}$	
μ_0	$1.7894 \times 10^{-5} \text{ kg m}^{-1} \text{ sec}^{-1}$	$1.2024 \times 10^{-5} \ \mathrm{lb} \ \mathrm{ft^{-1} \ sec^{-1}}$	
ν_0 6.9193×109 sec ⁻¹		$6.9193 \times 10^{9} \text{ sec}^{-1}$	
$*\rho_0$	$1.2250 \ \mathrm{kg} \ \mathrm{m}^{-3}$	$0.076474 \text{ lb ft}^{-3}$	
kσ0	$3.65 \times 10^{-10} \mathrm{m}$	$11.975 \times 10^{-10} \text{ ft}$	
ω_0	$12.013 \text{ kg m}^{-2} \text{ sec}^{-2}$	$2.4605 \text{ lb ft}^{-2} \text{ sec}^{-2}$	

^{*}These values are adopted for purposes of computation. The remaining values are derived from the adopted values.

I.2.9 Absolute temperature.—The absolute temperature (in ${}^{\circ}$ K) of the melting point of ice under a pressure of 101,325.0 newtons m⁻² is taken as

$$T_i = 273.15^{\circ} \text{ K}$$

based on the internationally adopted redefinition of the Kelvin scale. Temperatures T on the absolute scale (°K) are taken as

$$T = T_i + t$$
 I.2.9-(1)

where t is the temperature on the Celsius scale (°C). The magnitudes of the Kelvin and the Celsius degrees are equal.

Determination of the value of atmospheric temperature T at great altitudes, using conventional measuring techniques, requires a knowledge of molecular weight M of the air at that altitude. Without this knowledge of molecular weight, measurements yield only the value of T/M. Because of the uncertainty in the value of M at high altitudes, the temperature measurements from rockets are derived from the ratio T/M. This ratio, however, may be shown to relate the basic atmospheric properties of pressure, density, specific weight, scale height, particle speed, and speed of sound to altitude. That is, the altitude function of this ratio defines the altitude function of these properties. Thus, it is possible to find values of T to the degree of reliability with which M can be determined.

I.2.10 Pressure.—Within an atmospheric layer throughout which T_M is a linear function of H, the hydrostatic equation and the perfect gas law yield the following expression for the pressure:

$$\begin{split} \log_{e} P = & \log_{e} P_{b} - \frac{g_{0}}{L'_{M}} \frac{M_{0}}{R^{*}} \log_{e} \frac{L'_{M}(H - H_{b}) + T_{M, b}}{T_{M, b}} \\ & (L'_{M} \neq 0) \quad \text{I.2.10-(1)} \end{split}$$

$$\log_{e} P = \log_{e} P_{b} - \frac{g_{0}M_{0}}{R^{*}} \frac{1}{T_{M,b}} (H - H_{b})$$

$$(L'_{M} = 0) \quad I.2.10 - (2)$$

Or, alternately,

$$\frac{P}{P_b} = \left(\frac{T_{M,b}}{T_{M,b} + L'_M h}\right)^{\frac{g_0 M_0}{R^* L'_M}} \qquad (L'_M \neq 0) \quad \text{I.2.10-(3)}$$

and

$$\frac{P}{P_b} = \exp\left(-\frac{g_0 M_0 h}{R^* T_{M,b}}\right)$$
 $(L'_M = 0)$ 1.2.10-(4)

wherein

$$h=H-H_b$$

The foregoing expressions, which are in terms of geopotential height, H, are used to 90 km. Since geometric height is used from 90 to 700 km (ref. 13), the expression for pressure within a layer throughout which T_M is a linear function of geometric altitude Z is given by:

$$\log_{e} P = \log_{e} P_{b} - \frac{1}{L_{M}} \frac{M_{0}}{R^{*}} \int_{z_{b}}^{z} \frac{g \, dZ}{Z - Z_{b} + \frac{T_{M, b}}{L_{M}}} \qquad (L_{M} \neq 0)$$

$$I.2.10 - (5)$$

and

$$\log_e P = \log_e P_b - \frac{M_0}{R^*} \int_{z_b}^{z} \frac{g \, dZ}{T_{M,b}}$$
 $(L_M = 0)$ I.2.10-(6)

Since L_M is always greater than zero in the altitude range 90 to 700 km, equation I.2.10-(6) is not required herein, but is retained for completeness.

The variation of pressure with height is given in figure I.2.10.

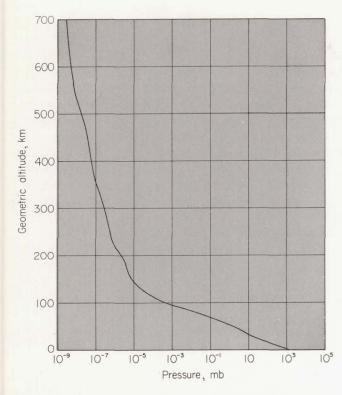


Figure I.2.10.—Pressure P as a function of geometric altitude Z.

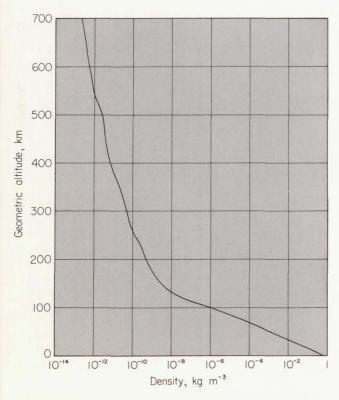


Figure I.2.11.—Density ρ as a function of geometric altitude Z.

I.2.11 Density.—The density can be calculated from the pressure (see section I.2.10) and the molecular-scale temperature (see section I.2.6) by means of the perfect gas law:

$$\rho = \frac{M_0}{R^*} \frac{P}{T_M}$$
 I.2.11-(1)

Variation of density with geometric altitude is given in figure I.2.11.

I.3 DERIVED QUANTITIES

I.3.1 Specific weight.—The specific weight ω is the weight per unit volume, that is,

$$\omega = \rho g$$
 I.3.1-(1)

Equation I.3.1-(1) and the perfect gas law yield

$$\omega = \rho g = g \frac{M_0}{R^*} \frac{P}{T_M} \qquad \qquad \text{I.3.1-(2)}$$

Figure I.3.1 gives a graphical representation of specific weight with geometric altitude.

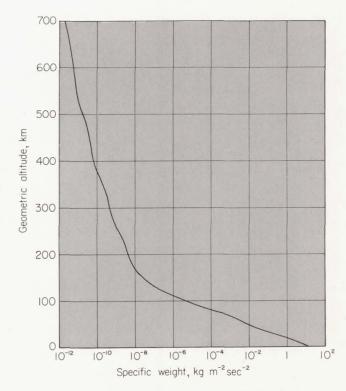


Figure I.3.1.—Specific weight ω as a function of geometric altitude Z.

I.3.2 Scale heights.—The pressure scale height (see fig. I.3.2) is widely used and hence is included among the tabular quantities. Pressure scale height is defined by

$$H_P = \frac{R^*}{M_0} \frac{T_M}{g}$$
 I.3.2-(1)

In terms of H_P the pressure ratio is

$$\frac{P}{P_0} = \exp\left(-\int_0^z \frac{dZ}{H_P}\right) \qquad \text{I.3.2-(2)}$$

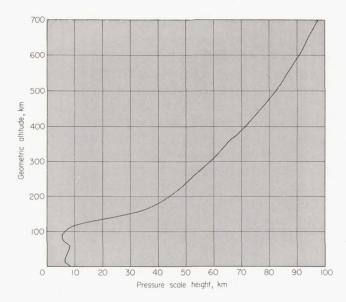


Figure I.3.2.—Pressure scale height H_P as a function of geometric altitude Z.

The density scale height H_{ρ} is defined by

$$H_{p} = \frac{H_{P}}{1 + \frac{R^{*}}{M_{0}g}} \frac{dT_{M}}{dZ}$$
 I.3.2-(3)

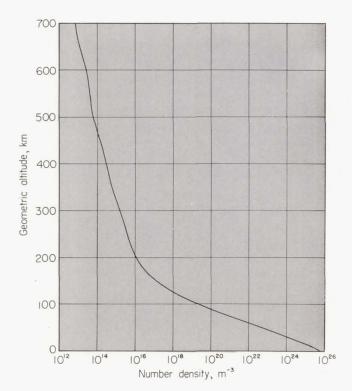


Figure I.3.3.—Number density n as a function of geometric altitude Z.

I.3.3 Number density.—The number density of air is defined to be the number of atmospheric particles per unit volume and the particles are considered to be neutral. The expression used is

$$n = \frac{M_0}{R^*} \frac{NP}{MT_M}$$
 I.3.3-(1)

wherein N is Avogadro's number and M is the molecular weight. The variation of number density with geometric altitude is given in figure I.3.3.

I.3.4 Mean air-particle speed.—The mean air-particle speed is the arithmetic average of the speeds of all air particles in the volume element being considered. All particles are considered to be neutral. For a valid average to occur, there must, of course, be a sufficient number of particles involved to represent mean conditions. Pressure and temperature gradients within the volume must also be negligible. The mean particle speed is given by

$$\overline{V} = \left(\frac{8}{\pi} \frac{R^*}{M_0} T_M\right)^{1/2}$$
 I.3.4-(1)

The variation of particle speed with geometric altitude is shown in figure I.3.4.

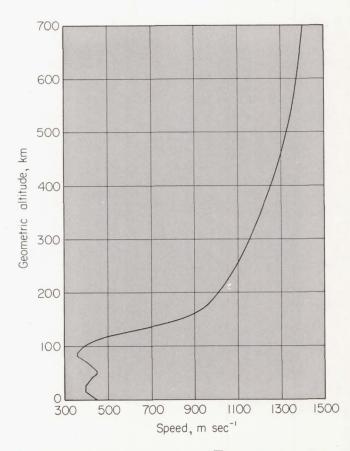


Figure I.3.4.—Mean particle speed \overline{V} as a function of geometric altitude Z.

I.3.5 Mean free path.—The mean free path L is the mean value of the distances traveled by each of the neutral particles, in a selected volume, between successive collisions with other particles in that volume. As before, a meaningful average requires that the selected volume be big enough to contain a

large number of particles. The computational form for L is

$$L = \frac{1}{(2)^{1/2}\pi N \sigma^2} \frac{R^*}{M_0} \frac{MT_M}{P} \qquad \text{I.3.5-(1)}$$

This expression at great altitudes is only valid under assumptions that hold M, T_M , P, and σ constant throughout the volume used. Figure I.3.5 depicts the mean free path in terms of altitude.

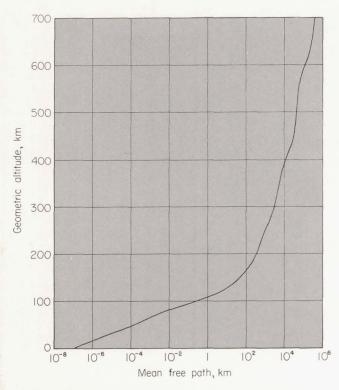


Figure I.3.5.—Mean free path L as a function of geometric altitude Z.

I.3.6 Collision frequency.—The average collision frequency ν is the average speed of the air particles within a selected volume divided by the mean free path L of the particles within that volume. That is,

$$\nu = \frac{\overline{V}}{L}$$
 I.3.6-(1)

and in computational form:

$$\nu \! = \! 4 \sigma^2 N \left(\pi \frac{M_{\rm 0}}{R^*} \right)^{\!\! 1/2} \! \frac{P}{M(T_{\rm M})^{1/2}} \qquad {\rm I.3.6-(2)}$$

Note that σ is the effective collision diameter of the mean air particle. The foregoing expressions are taken to apply to neutral particles only, since no considerations involving charged particles are introduced for purposes of developing the main tables.

Figure I.3.6 graphically displays the variation of collision frequency with altitude. See section I.3.4 for a discussion of the assumptions under which equation I.3.6–(2) is valid at great altitudes.

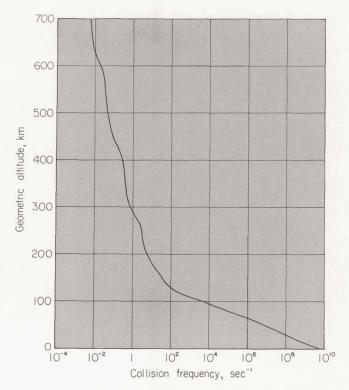


Figure I.3.6.—Collision frequency ν as a function of geometric altitude Z.

I.3.7 Speed of sound.—The expression adopted for the speed of sound is

$$C_s = \left(\gamma \frac{R^*}{M_0} T_M\right)^{1/2}$$
 I.3.7-(1)

It is to be noted that γ is the ratio of specific heat of air at constant pressure to that at constant volume, and is taken to be 1.40 exact (dimensionless). Equation I.3.7–(1) for the speed of sound applies only when the sound wave is a small perturbation on the ambient condition. Calculated values of C_s have been found to vary slightly from experimentally determined values.

The limitations of the concept of velocity of sound due to extreme attenuation are also of concern. The attenuation which exists at sea level for high frequencies applies to successively lower frequencies as atmospheric pressure decreases, or as the mean free path increases. For this reason the concept of speed of sound (except for frequencies approaching zero) progressively loses its range of applicability at high altitudes. Hence, the main tables terminate entry of values for speed of sound at 90 km.

Figure I.3.7 shows the variation with altitude of the computed speed of sound.

I.3.8 COEFFICIENT OF VISCOSITY.—The coefficient of viscosity is defined as a coefficient of internal friction developed where gas regions move adjacent to each other at different velocities. The following expression, basically from kinetic theory, but with

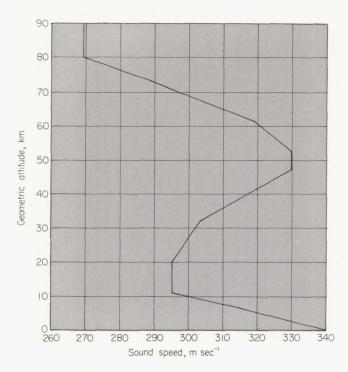


Figure I.3.7.—Sound speed C_* as a function of geometric altitude Z.

constants derived from experiment, is used for computation of the tables:

$$\mu = \frac{\beta T^{3/2}}{T + S}$$
 I.3.8-(1)

In this equation β is a constant equal to 1.458×10^{-6} kg sec⁻¹ m⁻¹(°K)^{-1/2} (exact) and S is Sutherland's constant, equal to 110.4° K (exact).

Equation I.3.8–(1) fails for conditions of very high and very low temperatures and under conditions occurring at great altitudes. (Consequently tabular entries for coefficient of viscosity are terminated at 90 km.) For these reasons caution is necessary in making measurements involving probes and other objects that are small with respect to the mean free path of molecules in the region of 32 to 90 km.

The variation of the coefficient of viscosity with altitude is shown in figure I.3.8.

I.3.9 KINEMATIC VISCOSITY.—Kinematic viscosity is defined as the ratio of the coefficient of viscosity of a gas to the density of that gas; that is,

$$\eta = \frac{\mu}{0}$$
 I.3.9-(1)

Limitations of this equation are comparable to those discussed in section I.3.8, and consequently tabular entries of kinematic viscosity are also terminated at the 90-km level. See figure I.3.9 for a graphical representation of the variation of kinematic viscosity with altitude.

I.3.10 Coefficient of thermal conductivity.— The empirical expression (ref. 3) adopted for pur-

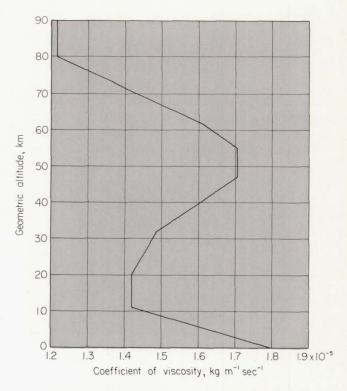


Figure I.3.8.—Coefficient of viscosity μ as a function of geometric altitude Z.

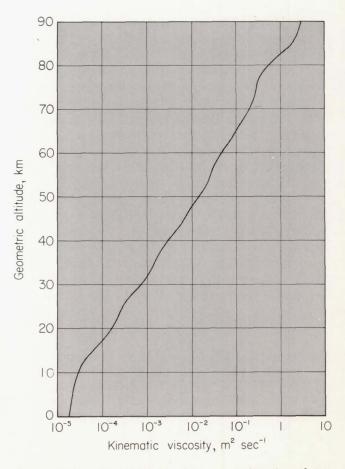


Figure I.3.9.—Kinematic viscosity η as a function of geometric altitude Z.

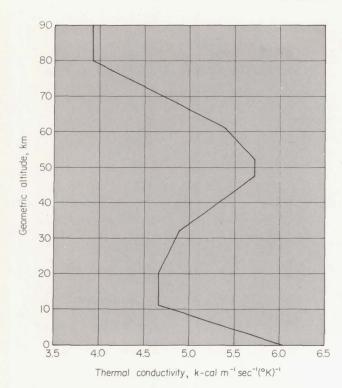


Figure I.3.10.—Coefficient of thermal conductivity k as a function of geometric altitude Z.

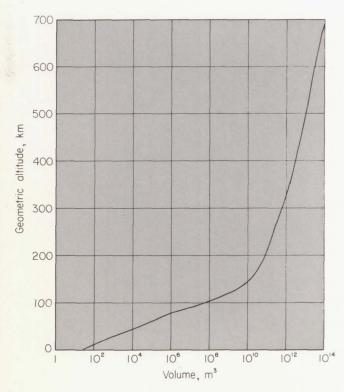


Figure I.3.11.—Mole volume v as a function of geometric altitude Z.

poses of developing tabular values of the coefficient of thermal conductivity to the 90-km level is as follows:

$$k = \frac{6.325 \times 10^{-7} T^{3/2}}{T + 245.4 \times 10^{-(12/T)}}$$
 I.3.10-(1)

Kinetic-theory determinations of thermal conductivity of some monatomic gases agree well with observation. For these gases thermal conductivity is directly proportional to the coefficient of viscosity. Modification of the simple theory has accounted in part for differences introduced by polyatomic molecules and by mixtures of gases. Tabular entry of values for coefficient of thermal conductivity is terminated at 90 km. The variation with height of this quantity is shown in figure I.3.10.

I.3.11 Mole volume.—While not tabulated, mole volume enters into certain ancillary calculations. It is defined as the volume per mole; that is,

$$v = \frac{M}{\rho} = \frac{R^*}{M_0} \frac{MT_M}{P}$$
 I.3.11-(1)

Figure I.3.11 gives the relationship between mole volume and altitude.

I.4. TABLES OF UNITS, CONVERSION FACTORS, AND DEFINING PROPERTIES

Table I.4(a).—Metric to English conversions of units of length, mass, and geopotential

A. Defined relations (the constants are adopted as being exact):

1 foot = 0.3048 meter
1 i.n. mi = 1,852 meters
1 pound = 0.45359237 kilogram
1 standard geopotential foot = 0.3048 standard geopotential meter

B. Derived relations:

potential

Table I.4(b).—Metric to English and absolute to nonabsolute conversions of temperature units

A. Defined:

 $t(^{\circ}\text{C})$ = $T(^{\circ}\text{K}) - T_{i}(^{\circ}\text{K})$, where $T_{i}(^{\circ}\text{K}) = 273.15(^{\circ}\text{K})$ $T(^{\circ}\text{R})$ = $1.8T(^{\circ}\text{K})$ $t(^{\circ}\text{F}) - t_{i}(^{\circ}\text{F})$ = $T(^{\circ}\text{R}) - T_{i}(^{\circ}\text{R})$, where $t_{i}(^{\circ}\text{F}) = 32(^{\circ}\text{F})$

B. Derived relations:

 $\begin{array}{lll} Einver \ Telastons. \\ t_i(^{\circ}\mathrm{C}) &= 0(^{\circ}\mathrm{C}) \\ T_i(^{\circ}\mathrm{R}) &= 491.670(^{\circ}\mathrm{R}) \\ t(^{\circ}\mathrm{C}) &= [T(^{\circ}\mathrm{R}) - T_i(^{\circ}\mathrm{R})]/1.8 = [t(^{\circ}\mathrm{F}) - t_i(^{\circ}\mathrm{F})]/1.8 \\ T(^{\circ}\mathrm{R}) &= 1.8[t(^{\circ}\mathrm{C}) + 273.15(^{\circ}\mathrm{C})] = t(^{\circ}\mathrm{F}) - t_i(^{\circ}\mathrm{F}) + \\ 491.670(^{\circ}\mathrm{R}) \\ t(^{\circ}\mathrm{F}) - 32(^{\circ}\mathrm{F}) = 1.8t(^{\circ}\mathrm{C}) = 1.8[T(^{\circ}\mathrm{K}) - 273.15(^{\circ}\mathrm{K})] \end{array}$

Table I.4(c).—Absolute systems of units to absoluteforce, gravitational system of units, metric-english

A. Defined:

1 force unit=1 mass unit \times g_0

B. Derived relations:

$$1 \text{ kgf} = 9.80665 \text{ kg m sec}^{-2}$$

$$1 \text{ kg} = \frac{1}{9.80665} \text{kgf sec}^2 \text{ m}^{-1} = 0.10197162 \text{ kgf sec}^2 \text{ m}^{-1}$$

$$1 \text{ lbf } = 0.45359237 \text{ kgf}$$

$$1 \text{ lbf } = 32.174049 \text{ lb ft sec}^{-2}$$

$$1 \; lb \;\; = 0.031080950 \; lbf \; sec^2 \; ft^{-1}$$

$$=0.031080950 \text{ slug}$$

 $1\;{\rm slug}\!=\!32.174049\;{\rm lb}$

Table I.4(d).—Thermal to mechanical units, metric-English

A. Defined relations:*

$$1 \text{ kg-cal} = \frac{1}{860} \text{ kw-hr (exact)}$$

1 kg-cal=
$$\frac{1.8}{0.45359237}$$
 BTU=3.9683207 BTU

1 joule=1 watt-sec

B. Derived relations:

1 kw-hr=
$$3.6\times10^6$$
 watt sec= 3.6×10^6 joules

1 kg-cal=
$$\frac{3.6\times10^6}{860}$$
 joules=4,186.0465 joules

$$=4,186.0465 \text{ kg m}^2 \text{ sec}^{-2}$$

1 kg-cal=
$$\frac{3.6\times10^6}{860\times9.80665}$$
m kgf=426.85795 m kgf

1 kg-cal=
$$\frac{3.6\times10^6}{860\times9.80665\times0.45359237\times0.3048} \; \mathrm{ft\ lbf}$$

$$=3087.4696$$
 ft lbf

$$1~{\rm BTU}~=\!\!\frac{0.45359237}{1.8}~{\rm kg\text{-}cal}\!=\!0.25199576~{\rm kg\text{-}cal}$$

1 BTU =
$$\frac{3.6 \times 10^6}{860 \times 0.3048 \times 9.80665 \times 1.8}$$
 ft lbf

$$=778.02922$$
 ft lbf

$$\begin{array}{l} 1 \text{ BTU } = & \frac{3.6 \times 10^6}{860 \times (0.3048)^2 \times 1.8} \text{ lb ft}^2 \text{ sec}^{-2} \\ = & 25032.349 \text{ lb ft}^2 \text{ sec}^{-2} \end{array}$$

Table I.4(e).—Defining properties of the standard atmosphere

	-			
Altitude, H , km	Molecular- scale tem- perature, T_M , ${}^{\circ}{ m K}$	Gradient, L' _M , °K/km	$\begin{array}{c} \text{Molecular} \\ \text{weight,} \\ M \end{array}$	Kinetic temper- ature, T, °K
0. 000	288. 15		28. 9644	288. 15
11. 000	216. 65	-6.5	28. 9644	216. 65
20. 000	216. 65	0. 0	28. 9644	216. 65
32. 000	228. 65	+1.0	28. 9644	228. 65
47. 000	270. 65	+2.8	28. 9644	270. 65
52. 000	270. 65	0. 0	28. 9644	270. 65
61. 000	252. 65	-2.0	28. 9644	252, 65
79. 000	180. 65	-4.0	28. 9644	180. 65
88. 743		0. 0		
	180. 65		28. 9644	180. 65
Altitude, Z , km	Molecular- scale tem- perature, T_M , °K	Gradient, L_M , ${}^{\circ}{ m K/km}$	$\begin{array}{c} \text{Molecular} \\ \text{weight,} \\ M \end{array}$	Kinetic temperature, T, °K
90	180. 65	1.9	28. 9644	180. 65
100	210. 65	+3	28. 88	210. 02
110	260. 65	+5	28. 56	257. 00
120	360. 65	+10	28. 07	349. 49
150	960. 65	+20	26. 92	892. 79
160	1, 110. 65	+15	26. 66	1, 022. 2
170	1, 210. 65	+10	26. 40	1, 103. 4
190	1, 350. 65	+7	25. 85	1, 205. 4
230	1, 550. 65	+5	24. 70	1, 322. 3
300	1, 830. 65	+4	22. 66	1, 432. 1
400	2, 160. 65	+3.3	19. 94	1, 487. 4
		+2.6		
500	2, 420. 65	+1.7	17. 94	1, 499. 2
600	2, 590. 65	+1.1	16. 84	1, 506. 1
700	2, 700. 65		16. 17	1, 507. 6

^{*}The calorie used here is the International Steam Table calorie and the joule is the mean international joule.

PART II

Additional Information Relating to the Atmosphere

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PART II

Additional Information Relating to the Atmosphere

II.0 INTRODUCTION

Part II of this document gives additional information relating to the atmosphere. This additional information will be found useful in extending the scope of Parts I and III, as well as in gaining an appreciation of trends in knowledge of the earth's atmosphere.

II.1 VALIDITY

The validity of Parts I and III of this document, insofar as the equations and fundamental numbers (constants) are concerned, is satisfactorily established by references and discussion throughout Part I. It is in the domain of validity of the assumptions made in Part I that further examination is necessary.

It will be recalled from the foreword and from Part I that the U.S. Standard Atmosphere, 1962 is an idealized, middle-latitude (approximately 45°) year-round mean over the range of solar activity between sunspot minima and maxima. It is further assumed in Part I that the atmosphere is a perfect gas, that it rotates everywhere with the earth, and that it is composed of neutral particles. Despite these assumptions, however, the adopted temperature profile (and molecular-weight profile) are based upon experimentally determined values, modified slightly to achieve easily computable gradients. To some extent, therefore, implicit account is taken of the real features of the atmosphere; that is, the standard is considerably more realistic than the simplifying assumptions would indicate.

Clearly, however, the real atmosphere differs from the standard and there are, of course, recognized departures, both temporal and spatial. Furthermore, in the higher reaches of the atmosphere the facts are well enough established now to extend the speculative region to 700 km with greater confidence than heretofore. For these reasons the systematic variations and observed (or inferred) extremes are discussed in the following section.

II.2 SYSTEMATIC VARIATIONS AND OBSERVED AND INFERRED EXTREMES

II.2.1 Sea level to 90 kilometers.—In the 0-to 90-km region, latitudinal and seasonal variations about the mean are present. In addition, both observation and inference show that extreme values of considerable magnitude exist. This information is

being developed in detail in a series of supplemental atmospheres to be published.

A family of nine atmospheres, extending up to 90 km, is being prepared under the direction of COESA. They include a mean annual atmosphere for 15° N. latitude (a region of small seasonal change) and January and July atmospheres for 30°, 45°, 60°, and 75° N. latitude. These atmospheres, supplemental to the U.S. Standard Atmosphere, 1962, will provide information to scientists and engineers on latitudinal, seasonal, and interdiurnal changes in atmospheric structure in order that they may investigate the importance of these departures from the standard in experiments and designs.

Based on preliminary work on these supplemental atmospheres for latitudes 15° to 60° N., envelopes of mean seasonal densities and temperatures have been estimated and are given in figures II.2.1(a) and II.2.1(b) for altitudes up to 90 km. The values shown by the envelope curves of any of the thermodynamic properties of the atmosphere could not possibly be encountered at all altitudes at any given location and time. The warmest surface layers in the tropics are associated with the coldest tropopause level, for example.

Systematic density variations.—The estimated range of systematic changes (seasonal and latitudinal variations, equator to 60° N.) of density is indicated by horizontal arrows in figure II.2.1(a) as percentage departures from standard. Above 30 km, both the largest negative and the largest positive departures occur at 60° N. latitude. The negative departures represent mean winter conditions and the positive departures represent mean summer conditions. Below 30 km, the range cannot be depicted for all levels by the maximum and minimum seasonal values at only one latitude.

The minimum latitudinal and seasonal variability, less than 1 percent, occurs at the isopycnic level near 8 km. Other levels of minimum variability, less pronounced than at the isopycnic level, occur at 26 and 85 km. Maximum seasonal and latitudinal variations occur near 15 and 70 km.

Extremes of density.—Observed extremes of density at levels above 30 km are indicated by circles in figure II.2.1(a). The minimum values were derived by Jones and Peterson (ref. 14) from a 27 January 1958 falling-sphere experiment at Fort Churchill,

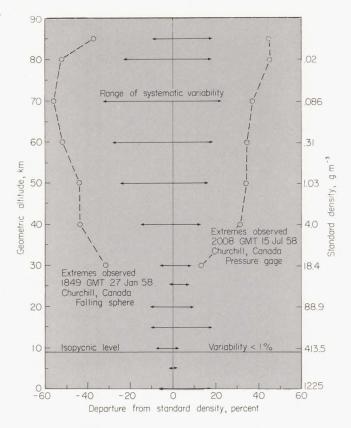


Figure II.2.1(a).—Range of systematic variability of density about the U.S. Standard Atmosphere, 1962.

Canada. The maximum densities above 40 km were observed by Nelson W. Spencer from a 15 July 1958 rocket flight (pressure sensor) at Fort Churchill, Canada (ref. 30).

Temperature variations.—Extreme temperature observations and mean seasonal variations about the U.S. Standard Atmosphere, 1962 are shown in figure II.2.1(b). The range of mean winter and summer temperatures, shown as horizontal arrows, is based upon hemispheric radiosonde data to 30 km. Between 30 and 60 km it is based on observations from instruments released by meteorological rockets from nearly a dozen northern-hemisphere launching sites. The extreme observations and the variations above 60 km have been extracted from other rather sparse rocket data. These rocket instruments include rocket-grenade temperature experiments, pitot-static pressure measurements, falling-sphere density measurements, and rocket-network temperature thermistors (to 50 km).

Both seasonal fluctuations and observed values are least accurate above 60 km, where direct temperature measurements are apparently subject to greatest errors. The data at these levels are based primarily on very few rocket-grenade observations which involve the use of sound ranging in deriving temperature and wind velocity. Most of the temperature extremes below 50 km are based on thermistor ob-

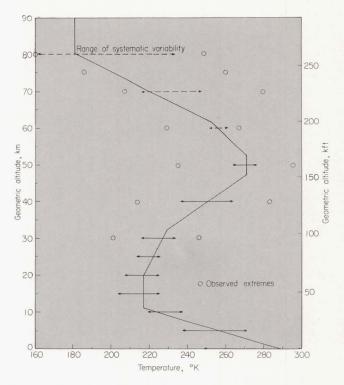


Figure II.2.1(b).—Range of systematic variability of temperature about the U.S. Standard Atmosphere, 1962.

servations from the many flights of the recently organized semioperational Meteorological Rocket Network (MRN).

Except at the surface, and at heights above 60 km where warm winter temperatures at 60° N. latitude cause large positive departures, the U.S. Standard Atmosphere, 1962 temperature profile lies near the center of the winter and summer seasonal range. Near 60 km, winter and summer temperature profiles at all latitudes approach or cross the standard. From 60 km to at least 90 km, winter temperatures generally are warmer and summer temperatures cooler than the standard (ref. 15).

II.2.2 90 KILOMETERS TO 200 KILOMETERS.—Within the region of 90 to 200 km only observed and inferred extremes are sufficiently well established to warrant discussion. The paucity of data in this region does not permit discussion of systematic variations.

It must be remembered that when data are obtained with various types of measuring equipment (some of it of an experimental nature) the maximum spread in the measured values of a given parameter (the extremes of measured data) may not be at all representative of the actual variability of that parameter. This should be kept in mind when considering measured values of atmospheric properties in the range of 90 to 200 km.

Extremes of molecular-scale temperature.—Figure II.2.2(a) shows experimental values of molecular-scale temperature compared with those of the stand-

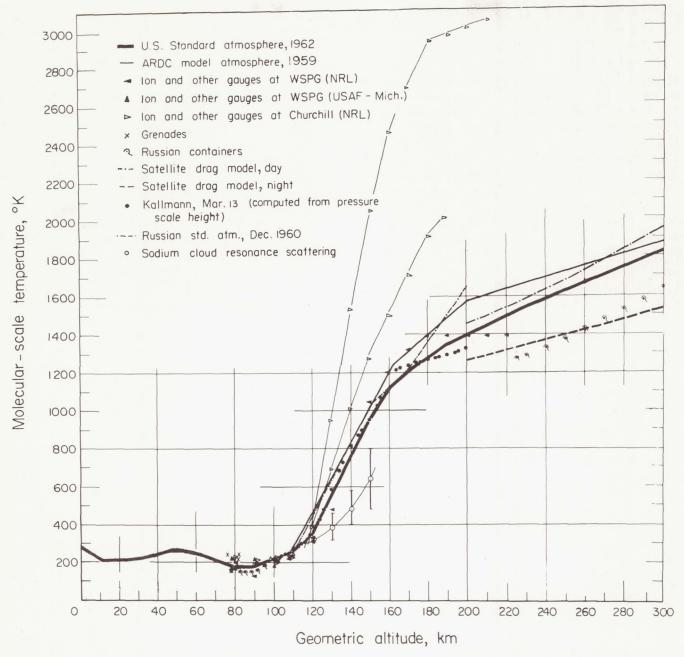


Figure II.2.2(a).—Molecular-scale temperatures of U.S. Standard Atmosphere, 1962 compared with ARDC Model Atmosphere, 1959 and with available data.

ard, the ARDC Model Atmosphere, 1959 (ref. 10), and the USSR Standard Atmosphere, 1960. The experimental data were obtained primarily at the White Sands Proving Ground, at Churchill, and at Russian rocket-launching sites. All the data presented lie within 100° K of the U.S. Standard Atmosphere, 1962 (in the 90- to 200-km range) except for three sets of measurements. Two of these measurements, for which the temperatures were substantially higher, were made at Churchill (at high geomagnetic latitude) during the International Geophysical Year near the peak of solar activity, when solar flares were frequent. Thus, not only was the solar 10.7-cm wavelength flux about

350×10⁻²² watts m⁻²/(cycle sec⁻¹) (see section II.3), for which a daytime temperature of 2,000° K to 2,200° K would be predicted at 200 km at low latitudes, but the corpuscular radiation would be expected to be particularly intense. For these reasons, the measured temperatures are probably reasonably accurate, but apply under very unusual conditions. The third set of measurements gives temperatures as much as 300° K below the standard. The measurements were made in terms of the Doppler broadening of the D lines of sodium released in the atmosphere. The reason that these measurements yield lower temperatures is not understood, particularly since this technique has yielded temperatures

(ref. 16) of 1,450° K at higher altitudes in good agreement with other data.

Extremes of density.—Density measurements are compared with the U.S. Standard Atmosphere, 1962 in figure II.2.2(b). It is believed that the two sets of points with very low densities obtained with mass spectrometers between 150 and 210 km are not accurate. The lowest of these was obtained with a Bennett type mass spectrometer at Churchill, Canada, on 20 November 1956. This was an early flight with this mass spectrometer and evidently the instrument did not function well, as can be seen by the apparent increase in density between 200 and 210 km indicated by the instruments. Because the signal strength was small compared with the background, the accuracy of the White Sands Proving Ground ion gauge measurements, which gave low densities above 130 km, is poor. The other data points shown in figure II.2.2(b) are probably reasonably accurate. However, they represent conditions ranging from night to day and minimum to maximum solar activity. At 90 km the measured values lie within a factor of less than 2 on either side of the mean density. The actual atmospheric density probably lies within a factor of 2 on either side of the mean value up to 200 km, although the range of variability is slowly increasing at higher altitudes.

Extremes of pressure.—In figure II.2.2(c) pressure data are compared with the standard. These data are basically the same as those in figure II.2.2(b), from which they are derived by means of the gas laws. The mass-spectrometer data are not included. Since in this altitude region pressure is derived from density and the slope of the density curve, the variation in the derived values of pressure will be greater than the variation in the density measurements. This does not necessarily imply that the actual variation in atmospheric pressure is any greater than that in the density. At 90 km, pressures as high as three times the standard have been measured. At 120 km the range is a factor of about 2.5 on either side of the mean. This range gradually increases until it is almost a factor of 4 on either side of the mean at 200 km altitude. Data shown in figures II.2.2(a), (b), and (c) are drawn from investigations of a number of authors (refs. 17 to 32).

II.2.3 200 KILOMETERS TO 700 KILOMETERS.—Systematic variations are identifiable in the 200-to 700-km range, but insufficient data exist to deal with extreme values. These systematic variations have been available only since the analysis of drag effects on the motions of artificial satellites.

An analysis of atmospheric drag effects on the motion of artificial satellites has revealed the existence of large density fluctuations in the atmosphere above the height of 200 km. Although several classes of fluctuation can be distinguished (that is, characteristic amplitude vs. time pattern), all have

one feature in common—they are caused by variations in heating of the earth's atmosphere due to variations in energy coming from the sun. In addition to erratic and semiperiodic changes, there is a more regular diurnal variation connected with the position of the sun with respect to the zenith.

The atmospheric model.—Since all the density fluctuations, including the diurnal variation, are of thermal origin, and since the kinetic temperature above 300 km is essentially independent of height, it would be convenient and much simpler to use the kinetic temperature as a parameter to describe atmospheric variations. Unfortunately, the observed quantity is the density, not the temperature. In order to convert densities into temperatures, there must first be generated a good atmospheric model in which densities are tabulated for many different temperatures. Nicolet's 1961 model (ref. 33) has been shown by Jacchia (refs. 34 and 35) to be adequate for the purpose, at least for heights above 300 km. This model is based on diffusion equilibrium, with known boundary conditions at a height of 120 km, with densities as a function of height for 12 standard top-atmospheric temperatures ranging from 773° K to 2,133° K; thus it is possible to interpolate the temperature when a density is given for a specified height, and the reverse. All the temperatures mentioned in this portion of the discussion are top-atmospheric temperatures derived from densities by means of Nicolet's 1961 model. It is to be noted that Nicolet has developed atmospheric models based on diffusion equilibrium in which helium plays a role. Heat conduction is the essential process that determined the gradient of the temperature.

Introduction of boundary conditions at 120 km, where diffusion begins for major constituents, leads to atmospheric models that can be used for analysis of day-to-night and solar activity variations in the whole thermosphere from 150 to 2,000 km. An analysis of the behavior of the heterosphere (i.e., of the terrestrial atmosphere where the mean molecular mass cannot be taken as a constant parameter) requires a theoretical study to supplement observational results from which it is not yet possible to obtain all the parameters needed for a complete picture of the physical conditions.

The variations of temperature and molecular weight with height in Nicolet's model differ from those adopted in the *U.S. Standard Atmosphere*, 1962. As a consequence, a temperature profile derived from Nicolet's tables for the densities of the present model shows considerable difference from the temperature profile in table I of reference 13. These differences are shown in table II.2.3(a).

As can be seen, apart from the critical region around a geometric height of 200 km, the difference in temperature between the two atmospheric models is about 200° K on the average, and it can be said

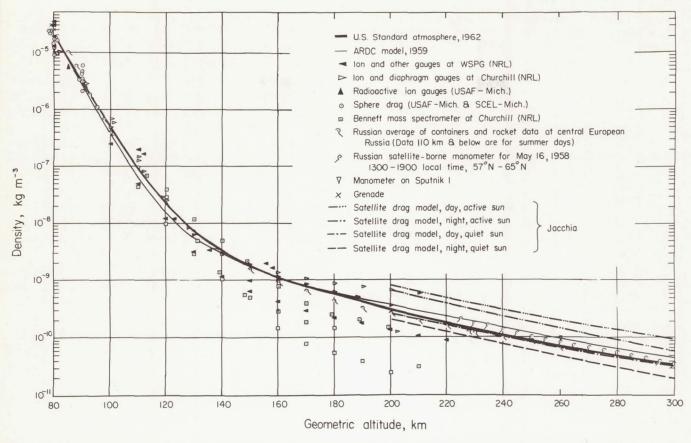


Figure II.2.2(b).—Density of U.S. Standard Atmosphere, 1962 compared with ARDC Model Atmosphere, 1959 and with available data.

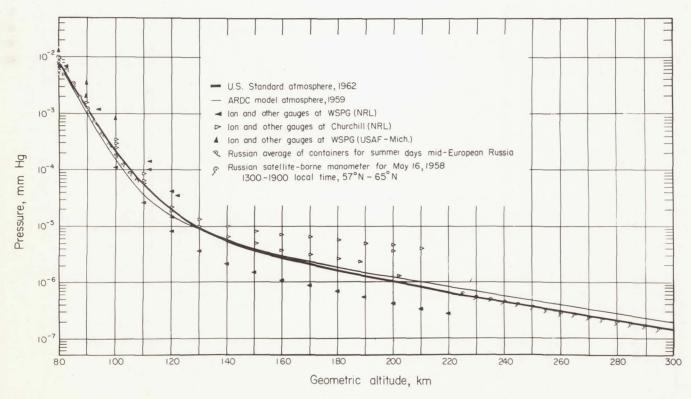


FIGURE II.2.2(c).—Pressures of U.S. Standard Atmosphere, 1962 compared with ARDC Model Atmosphere, 1969 and with available data.

Table II.2.3(a).—Temperature Differences Between the present atmospheric model and Nicolet's 1961 model

		Temperature, °K					
Z, km	*log 10P	Present model	Nicolet	Difference			
200	-12.480	1, 236	900	336			
300	-13.446	1, 432	1, 184	248			
400	-14.188	1, 487	1, 248	239			
500	-14.803	1, 499	1, 282	217			
600	-15.334	1, 506	1, 316	190			
700	-15.814	1, 508	1, 339	169			

^{*}For ρ in gm cm⁻³.

that, to a fair approximation, the quasi-asymptotic temperature of 1,500° K of the present model corresponds to an asymptotic temperature of 1,300° K in Nicolet's model. Therefore, the Nicolet temperature of 1,300° K will be taken as representative of the present model and density corrections will be computed on the basis of Nicolet's model for temperatures other than 1,300° K.

Causes of variations.—Upper-atmospheric temperature variations, and the density variations that occur as a consequence thereof, can be divided into three categories:

- (a) Variations caused by the variable position of the sun with respect to a given point above the earth's surface
- (b) Fluctuations caused by variations in the extreme ultraviolet flux from the sun
- (c) Fluctuations caused by variations in the corpuscular flux from the sun

Since observations indicate that through all these variations the temperature above 300 km remains, to a first approximation, rather independent of height, it must be assumed that most of the heating, both electromagnetic and corpuscular, occurs at heights below 300 km. The variations under (a) are usually referred to as the diurnal effect (refs. 36 to 38) and probably result from heat generated by absorption of ultraviolet radiation (ref. 39).

The diurnal bulge.—The maximum temperature seems to occur at a point on the globe about 30° eastward in longitude from the subsolar point. This is the center of the "diurnal bulge." (See refs. 35 and 40.) At this point, the temperature is about 40 percent higher than that at the point of minimum, in the dark hemisphere. Although the decrease in temperature from the center of the diurnal bulge outward is almost certainly not axially symmetric, a good approximation can be obtained by assuming that it is. If T_N denotes the minimum nighttime temperature, the temperature T at an angular distance ψ' from the center of the bulge can be represented by

$$T = T_N \left(1 + 0.4 \cos^n \frac{\psi'}{2} \right)$$
 (4

Because of the periodic change in latitude of the subsolar point, the day-to-night variation at any single point on the globe is dependent on the season. This seasonal effect, however, is automatically accounted for by equation II.2.3–(1).

Extreme ultraviolet flux.—The variations mentioned in the section Causes of variations, category (b), are generally erratic, although the 27day period of the solar rotation can often be recognized in them over extended intervals (ref. 41). Among the various solar parameters, a good and quickly available index is the decimetric flux from the sun (refs. 36 and 42), which apparently varies in the same general manner as the extreme ultraviolet solar emission. Under constraints of time intervals of a few months, it is found that variations $\Delta_1 T_N$ in the nighttime temperature are proportional to variations ΔF_{10} in the daily means F_{10} of the 10.7-cm solar flux measured by the National Research Council, Ottawa, Canada. When F_{10} is expressed in units of 10⁻²² watts m⁻²/(cycle sec⁻¹), then

$$\Delta_1 T_N = 2.5 \ \Delta F_{10}$$
 II.2.3-(2)

Corpuscular effects.—The corpuscular heating referred to under Causes of variations, category (c), manifests itself in a semiannual variation (refs. 43 and 44) superimposed on a slow fluctuation with the 11-year solar cycle (ref. 35). In addition, there are short-lived, spasmodic perturbations that parallel magnetic storms both in duration and intensity (ref. 45). The slow variations may be related to a "solar wind," which would provide a smooth background for the more violent corpuscular storms.

If the decimetric solar flux F_{10} is smoothed by taking monthly means, a variation is obtained which correlates with the 11-year solar cycle. It is thus not a simple matter to separate the ultraviolet and the slow-varying corpuscular components of atmospheric heating over time intervals even as long as 1 or 2 years. On the other hand, since the form of the 11-year variation in the corpuscular heating is not sufficiently well known, the decimetric flux again appears to be a convenient parameter for representing this variation, provided it is used in the smoothed \overline{F}_{10} (monthly mean) form.

The semiannual oscillations have maxima around April 7 and October 7, in fair agreement with the semiannual oscillation in the geomagnetic indices K_p , C_i , and u. (See refs. 46 to 48.) Their amplitude varies with the solar cycle and can also be expressed as a function of \overline{F}_{10} . For lack of better information it is assumed that the oscillation is a sinusoidal function of time.

The contribution of $\Delta_2 T_N$ of the solar wind to the

heating of the nighttime atmosphere can thus be written

$$\Delta_2 T_N = 2\Delta \overline{F}_{10} + 0.5 \overline{F}_{10} \cos \frac{2(t - \text{Apr. 7})}{365}$$
 II.2.3-(3)

Magnetically correlated effects.—During magnetically perturbed days there seems to be a simultaneous increase in the temperature of the entire upper atmosphere proportional to the 3-hour geomagnetic index a_p , the coefficient of proportionality $\Delta T/\Delta a_p$ being of the order of 1.5° or even higher. (See ref 34.) The contribution $\Delta_3 T_N$ of corpuscular storms to the heating of the atmosphere can therefore be written as

$$\Delta_3 T_N = 1.5 a_p$$
 II.2.3-(4)

Summary.—In summary, the nighttime temperature (in °K) can be computed from F_{10} , \overline{F}_{10} , and a_p as follows:

$$\begin{split} T_{N} &= \text{Constant} + \Delta_{1} T_{N} + \Delta_{2} T_{N} + \Delta_{3} T_{N} \\ &= 1,025 + 2.5 (F_{10} - 170) + 2.0 (\overline{F}_{10} - 170) \\ &+ 0.5 \overline{F}_{10} \cos \frac{2(t - \text{Apr. } 7)}{365} + 1.5 a_{p} \quad \text{II}.2.3 - (5) \end{split}$$

The maximum daytime temperature can be taken as $T_D=1.4T_N$, and the temperature T at intermediate points on the globe can be computed from equation II.2.3-(1).

Resulting density corrections can now be computed. Table II.2.3(b) gives these corrections to be applied to $\log_{10}\rho$ for various temperatures. It is to be noted, of course, that all the equations for computing the temperature are empirical and based on parameters F_{10} and a_p that are indirect indicators of the true energy source. Only a crude approximation can thus be expected from their use. A difficulty in practical applications may be the inevitable delay in obtaining information about the solar and geomagnetic parameters. Some degree of approximation can be achieved by ignoring the short-lived fluctuations—that is, by assuming that a_p is close to zero and by replacing F_{10} with an extrapolated value of \overline{F}_{10} from the curve of monthly means.

II.3 REPRESENTATIONS OF ATMOSPHERIC VARIABLES AS APPROXIMATE ANALYTIC FUNCTIONS OF ALTITUDE

For some applications of the standard atmosphere it is advantageous to have approximate representations of the density and other variables as analytic functions, in closed form, of the altitude. Such representations do not, for example, have the differentiability limitations induced by the polygonal form of the standard molecular-scale temperature profile. Furthermore, approximate finite mathematical formulas frequently afford a considerable advantage, for analytical and computational purposes, over the standard tables.

The method of approximate representation utilized in this section consists essentially of two parts. First, the molecular-scale temperature is approximated by a polynomial function of the geometric altitude; the criterion for this curve fit is that the integral of the squared error be a minimum. Second, this polynomial and a gravitational acceleration which is assumed to vary inversely as the square of the distance from the earth's center are used to integrate a form of the hydrostatic equation. As a result, the pressure and the density are obtained as analytic functions of the altitude. The approximate representations given here have been limited to the geometric altitude range of 0 to 200 km by considerations of accuracy and general utility.

The approximate polynomial expression for the molecular-scale temperature T_M is

$$T_M = a_0 + a_1 Z + a_2 Z^2 + \dots + a_n Z^n$$
 II.3-(1)

where Z is the geometric altitude. The sets of coefficients $a_0, a_1, a_2, \ldots, a_n$ are given in table II.3(a) for several values of the polynomial degree n. Accuracy comparisons are shown graphically in figure II.3(a).

The representations of the pressure P and the density ρ through the equations

$$\frac{P}{P_0} = \exp\left(-\frac{M_0}{R^*} \int_0^z \frac{g}{T_M} dZ\right) \qquad \text{II.3-(2)}$$

$$\frac{\rho}{\rho_0} = \frac{T_0}{T_M} \exp\left(-\frac{M_0}{R^*} \int_0^z \frac{g}{T_M} dZ\right) \qquad \text{II.3-(3)}$$

Table II.2.3(b).—Corrections to $\log_{10}\rho$ for various top-atmospheric temperatures*

	Correction for T, °K, of—										
Z, km	800	900	1, 000	1, 100	1, 200	1, 300	1, 500	1, 700	1, 900	2, 100	
200	-0. 25	-0.14	-0. 05	-0.02	-0.01	0. 00	+0.01	+0.01	0. 00	0. 0	
300	-0.62	-0.40	-0.22	-0.13	-0.06	0.00	+0.08	+0.13	+0.17	+0.2	
400	-0.92	-0.61	-0.37	-0.22	-0.10	0.00	+0.15	+0.27	+0.35	+0.4	
500	-1.16	-0.80	-0.50	-0.30	-0.14	0.00	+0.22	+0.37	+0.49	+0.5	
600	-1.36	-0.97	-0.62	-0.37	-0.17	0.00	+0.27	+0.47	+0.62	+0.74	
700	-1.40	-1.07	-0.72	-0.44	-0.21	0.00	+0.32	+0.56	+0.75	+0.8	

^{*}Computed from Nicolet's 1961 model, reference 33.

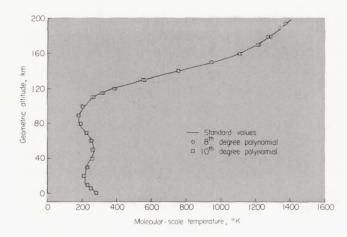


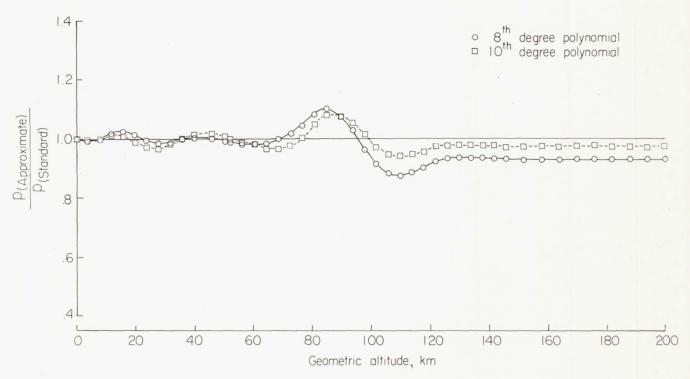
Figure II.3(a).—Comparison of polynomial values with standard values of T_M .

require approximate analytic expressions for the quantity

 $\frac{M_0}{R^*} \int_0^z \frac{g}{T_M} dZ \qquad \qquad \text{II.3-(4)}$

These analytic expressions, for several values of n, are given in table II.3(b). Pressures and densities computed therefrom are compared graphically with the standard-atmosphere values in figures II.3(b) and II.3(c).

More accurate approximations to the standard atmosphere than those presented herein are clearly possible at the expense of the smoothness of change of the atmospheric variables with altitude, the simplicity of analytic expression, and the computational precision necessary.



FIGURES II.3(b).—Ratio of approximate pressure to standard pressure for various altitudes.

Table II.3(a).—Derived polynomial coefficients for polynomials of various degrees [Units: temperature, ${}^{\circ}K$; length, km]

			Degree of	polynomial, n		
	5	6	7	8	9	10
$a_0 \ a_1$	$2.158247286 \times 10^{2}$ 2.411481452	$3.475660693 \times 10^{2}$ -2.525420010×10	$3.048459828 \times 10^{2}$ -1.329257586×10	$2.824793081 \times 10^{2}$ -5.240572992	$3.023172383 \times 10^{2}$ -1.416764159×10	$2.837492391 \times 10^{2}$ -3.955242007
$egin{array}{c} a_2 \ a_3 \ a_4 \end{array}$	$2.074750035 \times 10^{-3} \\ -1.862934731 \times 10^{-3} \\ 2.292350448 \times 10^{-5}$	1.385358828 $-2.952861629 \times 10^{-2}$ $2.822892690 \times 10^{-4}$	$ \begin{array}{c c} 5.779491911 \times 10^{-1} \\ -7.100570823 \times 10^{-3} \\ -2.609635606 \times 10^{-5} \end{array} $	$-1.266010595 \times 10^{-1}$ $1.873293836 \times 10^{-2}$ $-5.104746533 \times 10^{-4}$	$8.553764861 \times 10^{-1} $ $-2.709268043 \times 10^{-2} $ $6.065248048 \times 10^{-4} $	$-5.232974573 \times 10^{-1} 5.256403630 \times 10^{-2} -1.832962145 \times 10^{-3}$
75 76	$-6.651502204 \times 10^{-8}$	$-1.207724386 \times 10^{-6} $ $1.902015607 \times 10^{-9}$	$\begin{array}{c} 1.012652115\times 10^{-6} \\ -6.116010646\times 10^{-9} \\ 1.145432322\times 10^{-11} \end{array}$	$6.050186406 \times 10^{-6} \ -3.550162735 \times 10^{-8} \ 1.014102927 \times 10^{-10}$	$-9.587806007 \times 10^{-6} \ 9.481497610 \times 10^{-8} \ -5.368751119 \times 10^{-10}$	$3.432295909 \times 10^{-5}$ $-3.930824139 \times 10^{-7}$ $2.848535349 \times 10^{-9}$
17 18 19			1.149452522 \(10^{-1}	$-1.124449619 \times 10^{-13}$	$1.583000644 \times 10^{-12} $ $-1.883828451 \times 10^{-15}$	$-1.269919974 \times 10^{-1}$ $3.161762924 \times 10^{-1}$
a_{10}						$-3.350145769 \times 10^{-17}$

Table II.3(b).—Expansion in partial fractions and evaluation of the integral

[Units: temperature, °K; length, km; time, sec]

```
For n=8, the expansion of \frac{g}{T_M} in partial fractions yields
                                                \frac{g}{T_{\rm M}} = \frac{-3.5241442 \times 10^{18}}{(Z + 6356.77)^2 (Z + 21.680485) (Z - 284.01768) (Z^2 - 29.895060 Z + 924.13600) (Z^2 - 189.52010 Z + 9665.2950) (Z^2 - 420.11368 Z + 45,675.466)}
                                                                               =\frac{1.0902039\times10^{-7}}{(Z+6356.77)^2}+\frac{1.7870260\times10^{-4}}{(Z+21.680485)}-\frac{1.3949832\times10^{-5}}{(Z-284.01768)}+\frac{2.6655127\times10^{-4}Z+0.018031036}{(Z^2-29.895060Z+924.13600)}-\frac{3.2004620\times10^{-4}Z-0.060803123}{(Z^2-189.52010Z+9665.2950)}-\frac{1.1125784\times10^{-4}Z-0.028429767}{(Z^2-420.11368Z+45,675.466)}
 For n=10, the expansion of \frac{g}{T_M} in partial fractions yields
 \frac{g}{T_{\textit{M}}} = \frac{-1.1828508 \times 10^{22}}{(Z+6356.77)^2(Z+14.002385)\,(Z-216.23225)\,(Z^2-26.414270Z+684.10967)\,(Z^2-137.47450Z+10,533.544)\,(Z^2-193.32352Z+10,180.367)\,(Z^2-384.32662Z+38,131.516)}
                                                                                                                               =\frac{2.5653341\times 10^{-11}}{(Z+6356.77)}+\frac{1.4655396\times 10^{-7}}{(Z+6356.77)^2}+\frac{1.4116834\times 10^{-4}}{(Z+14.002385)}-\frac{3.8282910\times 10^{-5}}{(Z-216.23225)}+\frac{3.0169957\times 10^{-4}Z+0.011236207}{(Z^2-26.414270Z+684.10967)}+\frac{1.7103935\times 10^{-4}Z-0.0079564316}{(Z^2-137.47450Z+10.533.544)}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5.0784709\times 10^{-4}Z - 0.083577870 \\ \phantom{0}6.7777209\times 10^{-5}Z - 0.016141673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Z^2-193.32352Z+10.180.367) (Z^2-384.32662Z+38.131.516)
 For n=8, the integration of \frac{g}{T_H} yields
    +1.3327563\times 10^{-4} [\log_{\mathfrak{e}}(Z^2-29.895060Z+924.13600)]_0^z + 8.3168074\times 10^{-4} [\tan^{-1}(0.037777365Z-0.56467830)]_0^z - 1.6002310\times 10^{-4} [\log_{\mathfrak{e}}(Z^2-189.52010Z+9665.295)]_0^z - 1.6002310\times 10^{-4} [\log_{\mathfrak{e}}(Z^2-189.52010Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9600Z+9
                                                                              +1.1637071\times 10^{-3} \left[\tan^{-1}\left(0.038184967 Z-3.6184094\right)\right]_{0}^{z}-5.5628920\times 10^{-5} \left[\log_{e}\left(Z^{2}-420.11368 Z+45,675.466\right)\right]_{0}^{z}+1.2844040\times 10^{-4} \left[\tan^{-1}\left(0.025387008 Z-5.3327146\right)\right]_{0}^{z}+1.2844040\times 10^{-4} \left[\tan^{-1}\left(0.025387008 Z-5.3327146\right)\right]_{0}^{z}+1.284400\times 10^{-4} \left[\tan^{-1}\left(0.025387008 Z-5.3327146\right)\right]_{0}^{z}+1.284400\times 10^{-4} \left[\tan^{-1
For n=10, the integration of \frac{g}{T_{cc}} yields
      \int_{0}^{Z} \frac{g \, dZ}{T_{M}} = -1.4655396 \times 10^{-7} \left[ \frac{1}{Z + 6356.77} \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 6356.77 \right) \right]_{0}^{Z} + 1.4116834 \times 10^{-4} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 6356.77 \right) \right]_{0}^{Z} + 1.4116834 \times 10^{-4} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 6356.77 \right) \right]_{0}^{Z} + 1.4116834 \times 10^{-4} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 6356.77 \right) \right]_{0}^{Z} + 1.4116834 \times 10^{-4} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11} \left[ \log_{e} \left( Z + 14.002385 \right) \right]_{0}^{Z} + 2.5653341 \times 10^{-11
                                 -3.8282910\times 10^{-5} [\log_{\mathfrak{e}}(Z-216.23225)]_{b}^{p}+1.5084978\times 10^{-4} [\log_{\mathfrak{e}}(Z^{2}-26.414270Z+684.10967)]_{b}^{p}+6.7419880\times 10^{-4} [\tan^{-1}(0.044294588Z-0.58500460)]_{b}^{p}+0.78282910\times 10^{-4} [\log_{\mathfrak{e}}(Z-216.23225)]_{b}^{p}+1.5084978\times 10^{-4} [\log_{\mathfrak{e}}(Z-26.414270Z+684.10967)]_{b}^{p}+6.7419880\times 10^{-4} [\tan^{-1}(0.044294588Z-0.58500460)]_{b}^{p}+0.78282910\times 10^{-4} [\log_{\mathfrak{e}}(Z-216.23225)]_{b}^{p}+1.5084978\times 10^{-4} [\log_{\mathfrak{e}}(Z-26.414270Z+684.10967)]_{b}^{p}+0.7419880\times 10^{-4} [\log_{\mathfrak{e}}(Z-216.23225)]_{b}^{p}+0.78282910\times 10^{-4} [\log_{\mathfrak{e}}(Z-216.23225)]_{b}^{p}+0.78292910\times 10^{-4} [\log_{\mathfrak{e}}(Z-216.23225)]_{b}^{p}+0.78292910\times 10^{-
                                 +8.5519675\times 10^{-5} [\log_{e}(Z^{2}-137.47450Z+10,533.544)]_{o}^{z}+4.9863416\times 10^{-5} [\tan^{-1}(0.013120767Z-0.90188546)]_{o}^{z}-2.5392354\times 10^{-4} [\log_{e}(Z^{2}-193.32352Z+10,180.367)]_{o}^{z}+4.9863416\times 10^{-5} [\tan^{-1}(0.013120767Z-0.90188546)]_{o}^{z}-2.5392354\times 10^{-4} [\log_{e}(Z^{2}-193.32352Z+10,180.367)]_{o}^{z}-2.5392354\times 10^{-4} 
                                                                                 +1.1921879\times 10^{-3} \, [\tan^{-1} (0.034567717Z - 3.3413764)]_{\delta}^{\sigma} - 3.3888604\times 10^{-5} \, [\log_{\sigma} (Z^2 - 384.32662Z + 38,131.516)]_{\delta}^{\sigma} + 8.9812379\times 10^{-5} \, [\tan^{-1} (0.028810210Z - 5.5362654)]_{\delta}^{\sigma} + 3.9812379\times 10^{-5} \, [\tan^{-1}
```

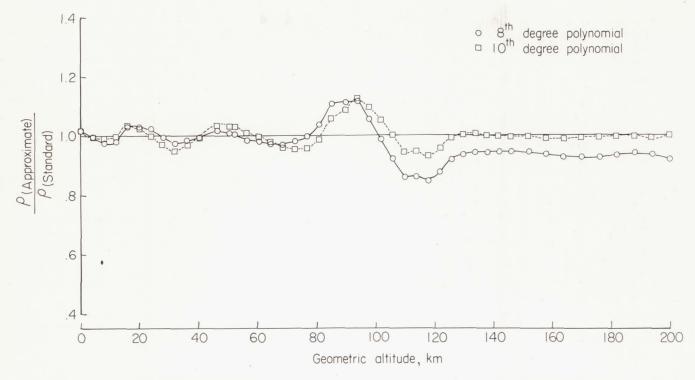


FIGURE II.3(c).—Ratio of approximate density to standard density for various altitudes.

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PART III

The Tables

PART III

The Tables

The main tables, contained in Part III of this document, have been computed by using the constants, conversion factors, and equations developed and discussed in Part I. Computation has been accomplished by means of electronic digital com-	Table II	Acceleration due to gravity, specific weight, pressure scale height, num- ber density, particle speed, collision frequency, mean free path, and mo-	Page
puters with selected check points validated by computation on a different machine. The automatic	III	lecular weight. Metric unitsSound speed, coefficient of viscosity, kinematic viscosity, and thermal	61
print-out from the machines has been directly reproduced here by a photographic process. Thus,		conductivity. Metric units	87
every precaution possible has been taken to eliminate	IV	Temperature, pressure, and density.	
both computational errors and errors of transcription. The tables are arranged in two principal categories: Atmospheric properties as a function of altitude,	v	English units	107
metric units		ber density, particle speed, collision	
Atmospheric properties as a function of altitude,		frequency, mean free path, and mo-	1.40
English units	VI	lecular weight. English units Sound speed, coefficient of viscosity,	149
It is to be emphasized that on left-hand pages entry is made in terms of geopotential altitude. On	Y 1 ,	kinematic viscosity, and thermal	
right-hand pages the same quantities appear in terms		conductivity. English units	191
of geometric altitude. This arrangement is followed	VII	Geopotential altitude in meters as a	22.
to an altitude of 90 km. Above this altitude all	57111	function of pressure in millibars	225
entries are made in terms of geometric altitude only.	VIII	Geopotential altitude in meters as a function of pressure in millimeters of	
A secondary category of the main tables presents pressure as a function of altitude in various units.		mercury	241
For added convenience, the contents of Part III	IX	Geopotential altitude in feet as a func-	
are repeated here:		tion of pressure in millibars	255
Table Page	\mathbf{X}	Geopotential altitude in feet as a func-	
I Temperature, pressure, and density.		tion of pressure in inches of mer-	

35

Metric units_____

271

cury_____

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TABLE I
GEOPOTENTIAL ALTITUDE, METRIC UNITS

Alti	tude	Т	emperatur	e		Pressure		Den	sity
H, m	Z, m	т,°к	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	$ ho$, kg m $^{-3}$	<u>P</u> Po
-5000 -4950 -4900 -4850 -4800 -4750 -4750 -4600 -4550	-4996 -4946 -4846 -4796 -4746 -4697 -4647 -4597 -4547	320.650 320.325 320.000 319.675 319.350 319.025 318.700 318.375 318.050 317.725	47.500 47.175 46.850 46.525 46.200 45.875 45.550 45.225 44.900 44.575	320.650 320.325 320.000 319.675 319.350 319.025 318.700 318.375 318.050 317.725	1.77687 + 3 1.76743 1.75802 1.74866 1.73933 1.73005 1.72081 1.71160 1.70244 1.69332	1.33276 + 3 1.32568 1.31862 1.31160 1.30461 1.29764 1.29071 1.28381 1.27693 1.27009	1.75363 + 0 1.74431 1.73503 1.72579 1.71659 1.70743 1.69830 1.68922 1.68018 1.67117	1.9305 + 0 1.9222 1.9139 1.9056 1.8974 1.8892 1.8810 1.8728 1.8647 1.8566	1.5759 + 0 1.5691 1.5623 1.5556 1.5489 1.5422 1.5355 1.5289 1.5222 1.5156
- 4500 - 4450 - 4400 - 4350 - 4360 - 4250 - 4200 - 4100 - 4100 - 4050	-4497 -4447 -4397 -4397 -4297 -4247 -4197 -4147 -4097 -4047	317.400 317.075 316.750 316.425 316.100 315.775 315.450 315.125 314.800 314.475	44.250 43.925 43.600 43.275 42.625 42.625 42.300 41.975 41.650 41.325	317.400 317.075 316.750 316.425 316.100 315.775 315.450 315.125 314.800 314.475	1.68423 + 3 1.67519 1.66618 1.65722 1.64829 1.63940 1.63055 1.62174 1.61297	1.26328 + 3 1.25649 1.24974 1.24302 1.23632 1.22965 1.22302 1.21641 1.20983 1.20328	1.66221 + 0 1.65328 1.64439 1.63555 1.62674 1.61796 1.60923 1.60954 1.59188 1.59326	1.8486 + 0 1.8405 1.8325 1.8245 1.8166 1.8086 1.8007 1.7928 1.7850 1.7771	1.5090 + 0 1.5025 1.4959 1.4829 1.4829 1.4764 1.4700 1.4635 1.4571 1.4507
-4000 -3950 -3900 -3850 -3800 -3750 -3700 -3650 -3650 -3550	-3997 -3948 -3898 -3848 -3798 -3748 -3698 -3648 -3598 -3548	314.150 313.825 313.500 313.175 312.850 312.525 312.200 311.875 311.550 311.225	41.000 40.675 40.350 40.025 39.700 39.375 39.050 38.725 38.400 38.075	314.150 313.825 313.500 313.175 312.525 312.525 312.200 311.875 311.550 311.225	1.59554 + 3 1.58689 1.57827 1.56969 1.56115 1.55264 1.54417 1.53574 1.52735 1.51900	1.19676 + 3 -1.19026 1.18380 1.17736 1.17096 1.16458 1.15823 1.15190 1.14561 1.13934	1.57468 + 0 1.56614 1.55763 1.54916 1.54973 1.53234 1.52398 1.51566 1.50738	1.7693 + 0 1.7616 1.7538 1.7461 1.7384 1.7307 1.7231 1.7154 1.7078 1.7003	1.4444 + 0 1.4380 1.4317 1.4254 1.4191 1.4128 1.4066 1.4004 1.3942 1.3880
-3500 -3450 -3400 -3350 -3350 -3250 -3200 -3150 -3100 -3050	-3498 -3448 -3398 -3348 -3298 -3248 -3198 -3148 -3098 -3049	310.900 310.575 310.250 309.925 309.600 309.275 308.950 308.625 308.625 308.300	37.750 37.425 37.100 36.775 36.450 36.125 35.800 35.475 35.150 34.825	310.900 310.575 310.250 309.925 309.600 309.275 308.950 308.625 308.300 307.975	1.51068 + 3 1.50240 1.49415 1.489594 1.47777 1.46964 1.46154 1.45347 1.45347 1.44545	1.13310 + 3 1.12689 1.12071 1.11455 1.10842 1.10232 1.09624 1.09020 1.08417 1.07818	1.49092 + 0 1.48275 1.47461 1.46651 1.45845 1.45042 1.43447 1.42655 1.41866	1.6927 + 0 1.6852 1.6777 1.6703 1.6628 1.6554 1.6480 1.6406 1.6333 1.6260	1.3818 + 0 1.3757 1.3696 1.3635 1.3574 1.3513 1.3453 1.3393 1.3333
-3000 -2950 -2900 -2850 -2850 -2750 -2700 -2650 -2650 -2550	-2999 -2949 -2899 -2849 -2799 -2749 -2699 -2649 -2599 -2549	307.650 307.325 307.000 306.675 306.350 306.025 305.700 305.375 305.050	34.500 34.175 33.850 33.525 33.200 32.875 32.550 32.225 31.900 31.575	307.650 307.325 307.000 306.675 306.350 306.025 305.700 305.375 305.050 304.725	1.42950 + 3 1.42158 1.41370 1.40585 1.39804 1.39026 1.38252 1.37481 1.36714 1.35950	1.07221 + 3 1.06627 1.06036 1.05448 1.04861 1.04278 1.03697 1.03119 1.02544 1.01971	1.41081 + 0 1.40299 1.39521 1.38747 1.37976 1.37208 1.36444 1.35683 1.34926 1.34172	1.6187 + 0 1.6114 1.6042 1.5970 1.5898 1.5826 1.5755 1.5684 1.5613 1.55542	1.3214 + 0 1.3155 1.3095 1.3037 1.2978 1.2919 1.2861 1.2803 1.2745 1.2687
-2500 -2450 -2400 -2350 -2350 -2250 -2250 -2150 -2100 -2050	-2499 -2449 -2399 -2349 -2299 -2249 -2149 -2149 -2099 -2049	304.400 304.075 303.750 303.425 303.100 302.775 302.450 302.125 301.400 301.475	31.250 30.925 30.600 30.275 29.950 29.625 29.300 28.975 28.650 28.325	304.400 304.075 303.750 303.425 303.100 302.775 302.450 302.125 301.800 301.475	1.35190 + 3 1.34433 1.33679 1.32929 1.32183 1.31439 1.30699 1.29963 1.29963 1.29230 1.28500	1.01401 + 3 1.00833 1.00268 9.97051 + 2 9.91451 9.85876 9.80327 9.74802 9.69304 9.63830	1.33422 + 0 1.32675 1.31931 1.31191 1.30454 1.29721 1.28990 1.28263 1.27540 1.26820	1.5472 + 0 1.5401 1.5332 1.5262 1.5192 1.5123 1.5054 1.4986 1.4917	1.2630 + 0 1.2573 1.2516 1.2459 1.2402 1.2345 1.2289 1.2233 1.2177
-2000 -1950 -1900 -1850 -1800 -1750 -1760 -1650 -1600 -1550	-1999 -1949 -1899 -1849 -1750 -1750 -1650 -1600 -1550	301-150 300.825 300.500 300.175 299.850 299.525 299.200 298.875 298-550 298-225	28.000 27.675 27.350 27.025 26.700 26.375 26.050 25.725 25.400 25.075	301.150 300.825 300.500 300.175 299.850 299.525 299.200 298.875 298.550 298.225	1.27774 + 3 1.27051 1.26331 1.25614 1.24901 1.24191 1.23485 1.22781 1.22081 1.21384	9.58382 + 2 9.52958 9.47559 9.42185 9.36836 9.31512 9.26212 9.20936 9.15685 9.10458	1.26103 + 0 1.25389 1.24679 1.23972 1.23268 1.22567 1.21870 1.21176 1.20485 1.19797	1.4781 + 0 1.4713 1.4645 1.4578 1.4511 1.4444 1.4378 1.4311 1.4245	1.2066 + 0 1.2011 1.1955 1.1901 1.1846 1.1791 1.1737 1.1683 1.1629 1.1575
-1500 -1450 -1400 -1350 -1350 -1250 -1250 -1150 -1100 -1050	-1500 -1450 -1400 -1350 -1300 -1250 -1200 -1150 -1100 -1050	297.900 297.575 297.250 296.925 296.600 296.275 295.950 295.625 295.300 294.975	24.750 24.425 24.100 23.775 23.450 23.125 22.800 22.475 22.150 21.825	297.900 297.575 297.250 296.925 296.600 296.275 295.950 295.300 294.975	1.20691 + 3 1.20000 1.19313 1.18629 1.17948 1.17270 1.16596 1.15925 1.15256 1.14591	9.05255 + 2 9.00076 8.94921 8.89791 8.84684 8.74541 8.69505 8.64493 8.59504	1.19112 + 0 1.18431 1.17753 1.17078 1.16406 1.15737 1.15071 1.14409 1.13749 1.13093	1.414 + 0 1.4048 1.3083 1.3918 1.3653 1.3789 1.3725 1.3661 1.3597 1.3533	1.1521 + 0 1.1468 1.1415 1.1362 1.1309 1.1256 1.1204 1.1152 1.1099 1.1048

Table I TEMPERATURE, PRESSURE, AND DENSITY Metric Units

Note: A one- or two-digit number (preceded by a plus or minus sign) following the initial entry of each block indicates the power of ten by which that entry and each succeeding entry of that block should be multiplied. A change of power occurring within a block is indicated by a similar notation.

GEOMETRIC ALTITUDE, METRIC UNITS

Alti	tude	T	emperatur	е		Pressure		Den	sity
Z, m	H, m	T,°K	t,°C	T _M ,°K	P, mb	P, mm Hg	P P _o	ρ , kg m ⁻³	$\frac{\rho}{\rho_{\rm o}}$
-5000 -4950 -4900 -4850 -4800 -4750 -4700 -4600 -4550	-5004 -4954 -4904 -4854 -4804 -4754 -4703 -4603 -4603 -4553	320.676 320.350 320.025 319.699 319.374 319.048 318.723 318.723 318.723	47.526 47.200 46.875 46.549 46.224 45.898 45.573 45.247 44.922 44.596	320.676 320.350 320.025 319.699 319.374 319.048 318.723 318.723 318.772	1.77762 + 3 1.76815 1.75873 1.74935 1.74901 1.73071 1.72145 1.71223 1.70305 1.69391	1.33332 + 3 1.32622 1.31916 1.31212 1.30511 1.29814 1.29119 1.28428 1.27739 1.27054	1.75437 + 0 1.74503 1.74503 1.73573 1.72647 1.71725 1.70808 1.69894 1.68984 1.68078 1.67176	1.9311 + 0 1.9228 1.9145 1.9062 1.8980 1.8898 1.8816 1.8734 1.8653 1.8572	1.5764 + 0 1.5696 1.5629 1.5561 1.5427 1.5360 1.5223 1.5227
-4500 -4450 -4400 -4350 -4350 -4250 -4200 -4150 -4100 -4050	-4503 -4453 -4403 -4353 -4353 -4253 -4203 -4153 -4153 -4053	317.421 317.095 316.770 316.444 316.119 315.793 315.468 315.143 314.817	44.271 43.945 43.620 43.294 42.969 42.643 42.318 41.667 41.342	317.421 317.095 316.770 316.444 316.119 315.793 315.468 315.143 314.817	1.68481 + 3 1.67575 1.66673 1.65775 1.64881 1.63991 1.63104 1.62222 1.61344 1.60469	1.26371 + 3 1.25692 1.25015 1.24342 1.23671 1.23003 1.22338 1.21677 1.21018 1.20362	1.66278 + 0 1.65384 1.64494 1.63607 1.62725 1.61846 1.60972 1.60101 1.59234 1.58371	1.8491 + 0 1.8410 1.8330 1.8250 1.8170 1.8091 1.8011 1.7933 1.7854	1.5094 + 0 1.5029 1.4963 1.4898 1.4833 1.4768 1.4703 1.4639 1.4575
-4000 -3950 -3900 -3850 -3850 -3750 -3700 -3650 -3650 -3550	-4003 -3952 -3902 -3852 -3802 -3752 -3702 -3652 -3602 -3552	314.166 313.841 313.516 313.190 312.865 312.539 312.214 311.889 311.563 311.238	41.016 40.691 40.366 40.040 39.715 39.389 39.064 38.739 38.413 38.088	314.166 313.841 313.516 313.190 312.865 312.539 312.214 311.889 311.563 311.238	1.59598 + 3 1.58731 1.57868 1.57009 1.56153 1.55302 1.54454 1.53610 1.52769 1.51933	1.19708 + 3 1.19058 1.18411 1.17766 1.17125 1.16486 1.15850 1.15217 1.14586 1.13959	1.57511 + 0 1.56656 1.55804 1.554956 1.54111 1.53271 1.52434 1.51601 1.50772	1.7697 + 0 1.7619 1.7542 1.7464 1.7387 1.7311 1.7234 1.7158 1.7082	1.4447 + 0 1.4383 1.4320 1.4257 1.4194 1.4131 1.4069 1.4006 1.3944 1.3882
-3500 -3450 -3400 -3350 -3300 -3250 -3200 -3150 -3100 -3050	-3502 -3452 -3402 -3352 -3302 -3252 -3202 -3152 -3102 -3051	310.913 310.587 310.262 309.936 309.611 309.286 308.960 308.8635 308.310 307.985	37.763 37.437 37.112 36.786 36.461 36.136 35.810 35.485 35.160 34.835	310.913 310.587 310.262 309.936 309.611 309.286 308.960 308.635 308.310 307.985	1.51100 + 3 1.50271 1.49445 1.48623 1.47805 1.46991 1.46180 1.45373 1.44569	1.13334 + 3 1.12712 1.12093 1.11477 1.10863 1.10252 1.09644 1.09038 1.08436 1.07836	1.49124 + 0 1.48305 1.47491 1.46680 1.45872 1.45068 1.44268 1.43472 1.42679 1.41889	1.6930 + 0 1.6855 1.6780 1.6705 1.6631 1.6556 1.6482 1.6409 1.6335	1.3821 + 0 1.3759 1.3698 1.3637 1.3576 1.3515 1.3455 1.3395 1.3335
-3000 -2950 -2900 -2850 -2850 -2750 -2700 -2650 -2650 -2550	-3001 -2951 -2901 -2851 -2801 -2751 -2701 -2651 -2601 -2551	307.659 307.334 307.009 306.683 306.358 306.707 305.382 305.707	34.509 34.184 33.859 33.533 33.208 32.883 32.557 32.232 31.907	307.659 307.334 307.009 306.683 306.358 306.033 305.707 305.382 305.057	1.42973 + 3 1.42180 1.41391 1.40605 1.39823 1.39045 1.38270 1.37498 1.36730 1.35966	1.07238 + 3 1.06644 1.06052 1.05463 1.04876 1.04292 1.03711 1.03132 1.02556 1.01983	1.41103 + 0 1.40321 1.39542 1.38766 1.37995 1.37226 1.36461 1.35700 1.34942 1.34188	1.6189 + 0 1.6116 1.6044 1.5972 1.5900 1.5828 1.5756 1.5685 1.5614 1.55544	1.3216 + 0 1.3156 1.3097 1.3038 1.2979 1.2921 1.2862 1.2804 1.2746 1.2689
-2500 -2450 -2400 -2350 -2300 -2250 -2200 -2150 -2100 -2050	-2501 -2451 -2401 -2351 -2301 -2251 -2201 -2151 -2101 -2051	304.406 304.081 303.756 303.431 303.105 302.780 302.455 302.130 301.805	31.256 30.931 30.606 30.281 29.955 29.630 29.305 28.980 28.655 28.329	304.406 304.081 303.756 303.431 303.105 302.780 302.455 302.130 301.805 301.479	1.35205 + 3 1.34447 1.33693 1.32942 1.32195 1.31451 1.30711 1.29974 1.29240 1.28510	1.01412 + 3 1.00844 1.00278 9.97148 + 2 9.91544 9.85964 9.80411 9.74883 9.69380 9.63902	1.33436 + 0 1.32689 1.31945 1.31945 1.30466 1.29732 1.29001 1.28274 1.27550 1.26829	1.5473 + 0 1.5403 1.5333 1.5263 1.5194 1.5124 1.5055 1.4987 1.4918	1.2631 + 0 1.2574 1.2517 1.2460 1.2403 1.2346 1.2290 1.2234 1.2178
-2000 -1950 -1900 -1850 -1850 -1750 -1700 -1650 -1600 -1550	-2001 -1951 -1901 -1851 -1801 -1750 -1700 -1650 -1600 -1550	301.154 300.829 300.504 300.178 299.853 299.528 299.203 298.878 298.553 298.227	28.004 27.679 27.354 27.028 26.703 26.378 26.053 25.728 25.403 25.077	301.154 300.829 300.504 300.178 299.853 299.528 299.203 298.878 298.553 298.227	1.27783 + 3 1.27059 1.26339 1.25622 1.24908 1.24198 1.23491 1.22787 1.22087 1.21390	9.58450 + 2 9.53023 9.47621 9.42243 9.36891 9.31563 9.26260 9.20981 9.15727 9.10497	1.26112 + 0 1.25398 1.24687 1.23979 1.23275 1.22574 1.21876 1.21182 1.20490 1.19802	1.4782 + 0 1.4714 1.4646 1.4579 1.4512 1.4445 1.4378 1.4312 1.4246 1.4180	1.2067 + 0 1.2011 1.1956 1.1901 1.1846 1.1792 1.1737 1.1683 1.1629 1.1575
-1500 -1450 -1400 -1350 -1350 -1250 -1200 -1150 -1100 -1050	-1500 -1450 -1400 -1350 -1300 -1250 -1200 -1150 -1100 -1050	297.902 297.577 297.252 296.927 296.602 296.277 295.626 295.301 294.976	24.752 24.427 24.102 23.777 23.452 23.127 22.801 22.476 22.151 21.826	297.902 297.577 297.252 296.927 296.602 296.277 295.951 295.626 295.301 294.976	1.20696 + 3 1.20005 1.19317 1.18633 1.17952 1.17274 1.16599 1.15927 1.15259 1.14593	9.05291 + 2 9.00110 8.94953 8.89820 8.84711 8.79626 8.74564 8.69526 8.64512 8.59521	1.19117 + 0 1.18436 1.17757 1.17082 1.16409 1.15740 1.15074 1.14411 1.13752 1.13095	1.4114 + 0 1.4049 1.3984 1.3919 1.3854 1.3789 1.3725 1.3661 1.3597 1.3534	1.1522 + 0 1.1468 1.1415 1.1362 1.1309 1.1257 1.1204 1.1152 1.1100 1.1048

Alti	tude	T	emperatur	e		Pressure		Den	sity
H, m	Z, m	T,°K	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P ₀	ρ , kg m ⁻³	<u>ρ</u> Ρο
-1000 -950 -900 -850 -800 -750 -700 -650 -600 -550	-1000 -950 -950 -850 -800 -750 -700 -650 -650 -550	294.650 294.325 294.000 293.675 293.025 293.025 292.700 292.375 292.050 291.725	21.500 21.175 20.850 20.525 20.200 19.875 19.550 19.225 18.900 18.575	294.650 294.325 294.000 293.675 293.350 293.025 292.700 292.375 292.050 291.725	1.13929 + 3 1.13270 1.12614 1.11962 1.11312 1.10665 1.10022 1.09381 1.08744 1.08109	8.54538 + 2 8.49596 8.44677 8.39781 8.39781 8.30057 8.25230 8.20425 8.15644 8.10884	1.12439 + 0 1.11789 1.11142 1.10497 1.09856 1.09218 1.08583 1.07951 1.07322 1.06695	1.3470 + 0 1.3407 1.3344 1.3281 1.3219 1.3157 1.3095 1.3033 1.2971	1.0996 + 0 1.0944 1.0893 1.0842 1.0791 1.0740 1.0639 1.0639 1.0589
-500 -450 -400 -350 -300 -250 -200 -150 -100 -50	-500 -450 -400 -350 -300 -250 -250 -150 -100	291.400 291.075 290.750 290.425 290.100 289.775 289.450 289.125 288.800 288.475	18.250 17.925 17.600 17.275 16.950 16.625 16.300 15.975 15.650 15.325	291.400 291.075 290.750 290.425 290.100 289.775 289.450 289.125 288.800 288.475	1.07477 + 3 1.06849 1.06223 1.05601 1.04981 1.04365 1.03751 1.03140 1.02532 1.01927	8.06147 + 2 8.01433 7.96741 7.92071 7.87424 7.82798 7.78195 7.73613 7.69054 7.64516	1.06072 + 0 1.05452 1.04834 1.04220 1.03608 1.03000 1.02394 1.01791 1.01191	1.2849 + 0 1.2788 1.2727 1.2667 1.2607 1.2547 1.2487 1.2427 1.2368 1.2309	1.0489 + 0 1.0439 1.0390 1.0340 1.0291 1.0242 1.0193 1.0145 1.0096
50 100 150 200 250 300 350 400	50 100 150 200 250 300 350 400	288.150 287.825 287.500 287.175 286.850 286.525 286.200 285.875 285.550	15.000 14.675 14.350 14.025 13.700 13.375 13.050 12.725 12.400	288.150 287.825 287.500 287.175 286.850 286.525 286.200 285.875 285.550	1.01325 + 3 1.00726 1.00129 9.95359 + 2 9.89453 9.83575 9.77725 9.71904 9.66111	7.60000 + 2 7.55505 7.51032 7.46581 7.42151 7.37742 7.33354 7.28988 7.24643	1.00000 + 0 9.94086 - 1 9.88200 9.82343 9.76514 9.70713 9.64940 9.59195 9.53477	1.2250 + 0 1.2191 1.2133 1.2075 1.2017 1.1959 1.1901 1.1844 1.1786	1.0000 + 0 9.9521 - 1 9.9044 9.8568 9.8094 9.7622 9.7151 9.6683 9.6216
450 500 550 600 650 700 750 800 850 900 950	450 550 600 650 700 750 850 850 900 950	285.225 284.900 284.575 284.250 283.925 283.275 282.950 282.625 282.300 281.975	12.075 11.750 11.425 11.100 10.775 10.450 10.125 9.800 9.475 9.150 8.825	285.225 284.900 284.575 284.250 283.925 283.275 282.950 282.625 282.300 281.975	9.60345 9.54608 + 2 9.48898 9.43216 9.37562 9.31935 9.26336 9.20763 9.15218 9.09700 9.04209	7.20318 7.16015 + 2 7.11732 7.07470 7.03229 6.99009 6.94809 6.90629 6.86470 6.82331 6.78213	9.47787 9.42125 - 1 9.36490 9.30882 9.25302 9.19749 9.14222 9.08723 9.03250 8.97805 8.92385	1.1729 1.1673 + 0 1.1616 1.1560 1.1504 1.1448 1.1392 1.1336 1.1281 1.1226 1.1171	9.5751 9.5287 - 1 9.4826 9.4365 9.3907 9.3451 9.2996 9.2542 9.2091 9.1641 9.1193
1000 1050 1100 1150 1200 1250 1300 1350 1400 1450	1000 1050 1100 1150 1200 1250 1350 1400 1450	281.650 281.325 281.000 280.675 280.350 280.025 279.700 279.375 279.050 278.725	8.500 8.175 7.850 7.525 7.200 6.875 6.550 6.225 5.900 5.575	281.650 281.325 281.000 280.675 280.350 280.025 279.700 279.375 279.050 278.725	8.98745 + 2 8.93308 8.87897 8.82513 8.77155 8.71824 8.66519 8.61240 8.55987 8.50761	6.74114 + 2 6.70036 6.65978 6.61939 6.57921 6.53922 6.49943 6.45983 6.42043 6.38123	8.86793 - 1 8.81626 8.76286 8.76286 8.65685 8.60423 8.55188 8.4978 8.44794 8.39635	1.1116 + 0 1.1062 1.1008 1.0954 1.0900 1.0846 1.0793 1.0739 1.0686 1.0633	9.0746 - 1 9.0302 8.9858 8.9417 8.8977 8.8539 8.8102 8.7668 8.7234 8.6803
1500 1550 1600 1650 1700 1750 1800 1850 1900	1500 1550 1600 1650 1700 1750 1801 1851 1901	278.400 278.075 277.750 277.425 277.100 276.775 276.450 276.125 275.800 275.475	5.250 4.925 4.600 4.275 3.950 3.625 3.300 2.975 2.650 2.325	278.400 278.075 277.750 277.425 277.100 276.775 276.450 276.125 275.800 275.475	8.45560 + 2 8.40384 8.35235 8.30111 8.25013 8.19939 8.14892 8.09869 8.04872 7.99899	6.34222 + 2 6.30340 6.26478 6.22634 6.18810 6.15005 6.11219 6.07452 6.03703 5.99974	8.34502 - 1 8.29395 8.24313 8.19256 8.14224 8.09217 8.04236 7.99279 7.94347 7.89439	1.0581 + 0 1.0528 1.0476 1.0472 1.0372 1.0320 1.0269 1.0218 1.0166	8.6373 - 1 8.5945 8.5518 8.55093 8.4669 8.4248 8.3827 8.3409 8.2992 8.2576
2000 2050 2100 2150 2200 2250 2300 2350 2400 2450	2001 2051 2101 2151 2201 2251 2301 2351 2401 2451	275.150 274.825 274.500 274.175 273.850 273.525 273.200 272.875 272.550 272.255	2.000 1.675 1.350 1.025 0.700 0.375 0.050 -0.275 -0.600 -0.925	275.150 274.825 274.500 274.175 273.850 273.525 273.200 272.875 272.550 272.225	7.94952 + 2 7.90029 7.85131 7.80257 7.75409 7.70584 7.65784 7.61008 7.56256 7.51529	5.96263 + 2 5.92570 5.88897 5.85241 5.81604 5.77986 5.74385 5.70803 5.67239 5.63693	7.84556 - 1 7.79698 7.74864 7.70054 7.65269 7.60507 7.55770 7.51057 7.46367 7.41701	1.0065 + 0 1.0014 9.9641 - 1 9.9140 9.8641 9.8143 9.7648 9.7155 9.6663 9.6174	8.2162 - 1 8.1750 8.1340 8.0930 8.0930 8.0523 8.0117 7.9713 7.9310 7.8909 7.8509
2500 2550 2600 2650 2700 2750 2800 2850 2900 2950	2501 2551 2601 2651 2701 2751 2801 2851 2901 2951	271.900 271.575 271.250 270.925 270.600 270.275 269.950 269.625 269.300 268.975	-1.250 -1.575 -1.900 -2.225 -2.550 -2.875 -3.200 -3.525 -3.850 -4.175	271.900 271.575 271.250 270.925 270.600 270.275 269.950 269.625 269.300 268.975	7.46825 + 2 7.42145 7.37489 7.32856 7.28248 7.23662 7.19100 7.14562 7.10046 7.05554	5.60165 + 2 5.56655 5.53162 5.49688 5.46231 5.42791 5.39370 5.35965 5.32579 5.29209	7.37059 - 1 7.32440 7.27845 7.23273 7.18725 7.14199 7.09697 7.05218 7.00761 6.96328	9.5686 - 1 9.5200 9.4716 9.4234 9.3754 9.3276 9.2779 9.2325 9.1852 9.1381	7.8111 - 1 7.7714 7.7319 7.6926 7.6534 7.6143 7.5754 7.5367 7.4981 7.4597

Altif	lude	Т	emperatur	e		Pressure		Den	sity
Z, m	H, m	Т,°К	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	ρ , kg m ⁻³	$\frac{\rho}{\rho_{o}}$
-1000 -950 -900 -850 -800 -750 -700 -650 -600 -550	-1000 -950 -900 -850 -800 -750 -700 -650 -650 -550	294.651 294.326 294.001 293.676 293.351 293.026 292.700 292.375 292.050 291.725	21.501 21.176 20.851 20.526 20.201 19.876 19.550 19.225 18.900 18.575	294.651 294.326 294.001 293.676 293.351 293.026 292.700 292.375 292.050 291.725	1.13931 + 3 1.13272 1.12616 1.11963 1.11313 1.10666 1.10023 1.09382 1.08744 1.08110	8.54554 + 2 8.49610 8.44689 8.39792 8.34917 8.30066 8.25237 8.20432 8.15649 8.10889	1.12441 + 0 1.11791 1.11143 1.10499 1.09858 1.09219 1.08584 1.07952 1.07322 1.06696	1.3470 + 0 1.3407 1.3344 1.3281 1.3219 1.3157 1.3095 1.3033 1.2971	1.0996 + 0 1.0945 1.0893 1.0842 1.0791 1.0790 1.0639 1.0639 1.0589
-500 -450 -400 -350 -300 -250 -200 -150 -100	-500 -450 -400 -350 -300 -250 -200 -150 -100	291.400 291.075 290.750 290.425 290.100 289.775 289.450 289.125 288.800 288.475	18.250 17.925 17.600 17.275 16.950 16.625 16.300 15.975 15.650 15.325	291.400 291.075 290.750 290.425 290.100 289.775 289.450 289.125 288.800 288.475	1.07478 + 3 1.06849 1.06224 1.05601 1.04981 1.04365 1.03751 1.03140 1.02532 1.01927	8.06151 + 2 8.01436 7.96743 7.92073 7.82425 7.82799 7.78195 7.73614 7.69054 7.64516	1.06073 + 0 1.05452 1.04835 1.04820 1.03609 1.03000 1.02394 1.01791 1.01191	1.2849 + 0 1.2788 1.2727 1.2667 1.2607 1.2547 1.2487 1.2427 1.2368 1.2309	1.0489 + 0 1.0439 1.0390 1.0340 1.0291 1.0242 1.0193 1.0145 1.0096
50	0 50	288.150 287.825	15.000 14.675	288.150 287.825	1.01325 + 3 1.00726 1.00129	7.60000 + 2 7.55505 7.51032	1.00000 + 0 9.94086 - 1 9.88201	1.2250 + 0 1.2191 1.2133	1.0000 + 0 9.9521 - 1 9.9044
100 150 200 250 300 350 400 450	100 150 200 250 300 350 400 450	287.500 287.175 286.850 286.525 286.200 285.875 285.550 285.225	14.350 14.025 13.700 13.375 13.050 12.725 12.400 12.075	287.500 287.175 286.850 286.525 286.200 285.875 285.550 285.225	9.95360 + 2 9.89454 9.83576 9.77727 9.71906 9.66114 9.60349	7.46581 7.42151 7.37743 7.33354 7.28990 7.24645 7.20321	9.82344 9.76515 9.70714 9.64942 9.59197 9.53480 9.47791	1.2075 1.2075 1.2017 1.1959 1.1901 1.1844 1.1786	9.8568 9.8094 9.7622 9.7152 9.6683 9.6216 9.5751
500 550 600 650 700 750 800 850 900	500 550 600 650 700 750 800 850 900 950	284.900 284.575 284.250 283.925 283.600 283.276 282.951 282.626 282.301 281.976	11.750 11.425 11.100 10.775 10.450 10.126 9.801 9.476 9.151 8.826	284.900 284.575 284.250 283.925 283.600 283.276 282.951 282.626 282.301 281.976	9.54612 + 2 9.48904 9.43223 9.37570 9.31944 9.26346 9.20775 9.15231 9.09714 9.04225	7-16018 + 2 7-11736 7-07475 7-03235 6-99015 6-94816 6-90638 6-86480 6-82342 6-78225	9.42129 - 1 9.36495 9.30889 9.25309 9.19757 9.14232 9.08734 9.03263 8.97818 8.92401	1.1673 + 0 1.1616 1.1560 1.1504 1.1448 1.1392 1.1337 1.1281 1.1226	9.5288 - 1 9.4826 9.4366 9.3908 9.3451 9.2996 9.2543 9.2092 9.1642 9.1194
1000 1050 1100 1150 1200 1250 1300 1350 1400	1000 1050 1100 1150 1200 1250 1350 1350 1400	281.651 281.326 281.001 280.676 280.351 280.027 279.702 279.377 279.052 278.727	8.501 8.176 7.851 7.526 7.201 6.877 6.552 6.227 5.902 5.577	281.651 281.326 281.001 280.676 280.351 280.027 279.702 279.377 279.052 278.727	8.98762 + 2 8.93327 8.87918 8.82535 8.77180 8.71850 8.66547 8.61270 8.56020 8.50795	6.74127 + 2 6.70050 6.65993 6.61956 6.57939 6.53941 6.49964 6.46006 6.42068 6.38149	8.87009 - 1 8.81645 8.76307 8.70995 8.65709 8.60449 8.55215 8.50008 8.44826 8.39669	1.1117 + 0 1.1062 1.1008 1.0954 1.0900 1.0846 1.0793 1.0740 1.0687 1.0634	9.0748 - 1 9.0303 8.9860 8.9419 8.8979 8.8541 8.8105 8.7670 8.7237 8.6806
1500 1550 1600 1650 1700 1750 1800 1850 1900	1500 1550 1600 1650 1700 1750 1799 1849 1899	278.402 278.077 277.753 277.428 277.103 276.778 276.453 276.128 275.804 275.479	5.252 4.927 4.603 4.278 3.628 3.303 2.978 2.654 2.329	278.402 278.077 277.753 277.428 277.103 276.778 276.453 276.128 275.804 275.479	8.45596 + 2 8.40423 8.35276 8.30155 8.25059 8.19988 8.19943 8.09923 8.04928 7.99958	6.34249 + 2 6.30369 6.26509 6.2667 6.18845 6.15042 6.11258 6.07492 6.03746 6.00018	8.34539 - 1 8.29433 8.24354 8.19299 8.14270 8.09265 8.04286 7.99332 7.94402 7.89498	1.0581 + 0 1.0529 1.0476 1.0424 1.0372 1.0321 1.0269 1.0218 1.0167	8.6376 - 1 8.5948 8.5521 8.5096 8.4073 8.4252 8.3832 8.3832 8.3413 8.2996 8.2581
2000 2050 2100 2150 2200 2250 2300 2350 2400 2450	1999 2049 2099 2149 2199 2249 2299 2349 2399 2449	275.154 274.829 274.505 274.180 273.530 273.205 272.2881 272.556 272.231	2.004 1.679 1.355 1.030 0.705 0.380 0.055 -0.269 -0.594	275.154 274.829 274.505 274.180 273.530 273.530 273.205 272.881 272.556 272.231	7.95014 + 2 7.90094 7.85199 7.80328 7.75482 7.70661 7.65863 7.61091 7.56342 7.51618	5.96309 + 2 5.92619 5.88947 5.85294 5.81659 5.78043 5.74445 5.70865 5.67303 5.63760	7.84618 - 1 7.79762 7.74931 7.70124 7.65341 7.60583 7.55849 7.51138 7.46452 7.41789	1.0066 + 0 1.0015 9.9648 - 1 9.9147 9.8151 9.7656 9.7163 9.6672 9.6183	8.2168 - 1 8.1756 8.1345 8.0936 8.0529 8.0124 7.9719 7.9317 7.8916 7.8517
2500 2550 2600 2650 2700 2750 2800 2850 2900 2950	2499 2549 2599 2649 2749 2749 2849 2849 2849	271.906 271.582 271.257 270.932 270.607 270.283 269.958 269.633 269.309 268.984	-1.244 -1.568 -1.893 -2.218 -2.543 -2.867 -3.192 -3.517 -3.841 -4.166	271.906 271.582 271.257 270.932 270.607 270.283 269.958 269.633 269.309 268.984	7.46917 + 2 7.42240 7.37588 7.32958 7.28353 7.23771 7.19213 7.14677 7.10166 7.05677	5.60234 + 2 5.56726 5.53236 5.49764 5.46310 5.42873 5.39454 5.36052 5.32668 5.29301	7.37150 - 1 7.32534 7.27942 7.23374 7.18829 7.14307 7.09808 7.05332 7.00879 6.96449	9.5695 - 1 9.5210 9.4726 9.4245 9.3765 9.3287 9.2811 9.2337 9.1864 9.1394	7.8119 - 1 7.7722 7.7328 7.6934 7.6543 7.6153 7.5764 7.5377 7.4991 7.4607

Altit	tude	Т	emperatur	e		Pressure		Den	sity
H, m	Z, m	Т,°К	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>Р</u> Р ₀	$ ho$, kg m $^{-3}$	$\frac{\rho}{\rho_{o}}$
3000 3050 3100 3150 3200 3250 3300 3350 3400 3450	3001 3051 3102 3152 3202 3252 3302 3352 3352 3402 3452	268.650 260.325 268.000 267.675 267.350 267.025 266.700 266.375 266.050 265.725	-4.500 -4.825 -5.150 -5.475 -5.800 -6.125 -6.450 -6.775 -7.100 -7.425	268.650 268.325 268.000 267.675 267.350 267.025 266.700 266.375 266.050 265.725	7.01085 + 2 6.96639 6.92215 6.87815 6.83437 6.79081 6.74748 6.70438 6.66150 6.61884	5.25857 + 2 5.22522 5.19204 5.15903 5.12620 5.09353 5.06103 5.02870 4.99654 4.96454	6.91917 - 1 6.87529 6.83163 6.78820 6.74500 6.70201 6.65925 6.61671 6.57439 6.53229	9.0912 - 1 9.0445 8.9980 8.9955 8.9955 8.8595 8.8137 8.7681 8.7226 8.6774	7.4214 - 1 7.3833 7.3453 7.3074 7.2698 7.2322 7.1948 7.1576 7.1205 7.0836
3500 3550 3600 3650 3700 3750 3850 3850 3900 3950	3502 3552 3602 3652 3702 3752 3802 3852 3902 3952	265.400 265.075 264.750 264.425 264.100 263.775 263.450 263.125 262.800 262.475	-7.750 -8.075 -8.400 -8.725 -9.050 -9.375 -9.700 -10.025 -10.675	265.400 265.075 264.750 264.425 264.100 263.775 263.450 263.125 262.800 262.475	6.57640 + 2 6.53419 6.49219 6.45041 6.40885 6.36751 6.32638 6.28547 6.24477 6.20429	4.93271 + 2 4.90104 4.86954 4.83821 4.80703 4.77602 4.774518 4.71449 4.68396 4.65360	6.49040 - 1 6.44874 6.40729 6.36606 6.32504 6.28424 6.24365 6.20328 6.16311 6.12316	8.6323 - 1 8.5874 8.5427 8.4981 8.4538 8.4096 8.3656 8.3217 8.2781	7.0468 - 1 7.0101 6.9736 6.9372 6.9010 6.8650 6.8290 6.7933 6.7576
4000 4050 4150 4150 4250 4350 4350 4400 4450	4003 4103 4103 4153 4203 4253 4353 4353 4453	262.150 261.825 261.500 261.175 260.850 260.525 260.200 259.875 259.550 259.225	-11.000 -11.325 -11.650 -11.975 -12.300 -12.625 -12.950 -13.275 -13.600 -13.925	262.150 261.825 261.500 261.175 260.850 260.525 260.200 259.875 259.550 259.225	6.16402 + 2 6.12396 6.08411 6.04447 6.00505 5.96583 5.92681 5.88801 5.884941 5.81102	4.62339 + 2 4.59335 4.56346 4.53373 4.50416 4.47474 4.44548 4.41637 4.38742 4.38742	6.08341 - 1 6.04388 6.00455 5.96543 5.92652 5.88781 5.84931 5.81101 5.77292 5.73503	8.1913 - 1 8.1482 8.1052 8.0624 8.0198 7.9774 7.9351 7.8930 7.8511 7.8093	6.6868 - 1 6.6516 6.6165 6.5816 6.5468 6.5121 6.4776 6.4433 6.4090 6.3750
4500 4550 4600 4650 4700 4750 4800 4850 4900 4950	4503 4503 4603 4703 4703 4754 4854 4904 4954	258.900 258.575 258.250 257.925 257.600 257.275 256.950 256.625 256.300 255.975	-14.250 -14.575 -14.900 -15.225 -15.550 -15.875 -16.200 -16.525 -16.850 -17.175	258.900 258.575 258.250 257.925 257.600 257.275 256.950 256.625 256.300 255.975	5.77283 + 2 5.73484 5.69706 5.65948 5.62209 5.58491 5.54793 5.51115 5.47457 5.43818	4.32998 + 2 4.30148 4.27314 4.24496 4.21692 4.18903 4.16129 4.13370 4.10626 4.07897	5.69734 - 1 5.65985 5.62256 5.58547 5.54858 5.51188 5.47538 5.43908 5.43908 5.40298 5.36706	7.7677 - 1 7.7263 7.6851 7.6851 7.6440 7.6031 7.5624 7.5218 7.4814 7.4411 7.4011	6.3410 - 1 6.3072 6.2735 6.2400 6.2066 6.1734 6.1402 6.1072 6.0744 6.0417
5000 5050 5100 5150 5200 5250 5300 5350 5400 5450	5004 5054 5104 5154 5204 5254 5355 5405	255.650 255.325 255.000 254.675 254.350 254.025 253.700 253.375 253.050 252.725	-17.500 -17.825 -18.150 -18.475 -18.800 -19.125 -19.450 -19.775 -20.100 -20.425	255.650 255.325 255.000 254.675 254.6350 254.025 253.700 253.375 253.050 252.725	5.40199 + 2 5.36599 5.33019 5.29458 5.25916 5.22394 5.18891 5.15407 5.11941 5.08495	4.05182 + 2 4.02482 3.99797 3.97126 3.94470 3.91828 3.89200 3.86587 3.83988 3.81403	5.33135 - 1 5.29582 5.26049 5.22534 5.19039 5.15563 5.12105 5.08667 5.05247 5.01846	7.3612 - 1 7.3214 7.2818 7.2424 7.2032 7.1641 7.1251 7.0864 7.0478 7.0093	6.0091 - 1 5.9767 5.9444 5.9122 5.8801 5.8482 5.8164 5.7848 5.7533 5.7533
5500 5550 5600 5650 5700 5750 5800 5850 5900 5950	5505 5555 5605 5655 5705 5755 5805 5855 5895 5995	252.400 252.075 251.750 251.425 251.100 250.775 250.450 250.125 249.800 249.475	-20.750 -21.075 -21.400 -21.725 -22.050 -22.375 -22.700 -23.025 -23.350 -23.675	252.400 252.075 251.750 251.425 251.100 250.775 250.450 250.125 249.800 249.475	5.05068 + 2 5.01659 4.98269 4.94897 4.91544 4.88209 4.84893 4.81595 4.78315 4.75053	3.78832 + 2 3.76275 3.73732 3.71203 3.68688 3.66187 3.63700 3.61226 3.58766 3.56319	4.98463 - 1 4.95099 4.91753 4.88425 4.85116 4.81825 4.78552 4.75297 4.72060 4.68841	6.9711 - 1 6.9329 6.8950 6.8572 6.8195 6.7820 6.7447 6.7075 6.6705	5.6907 - 1 5.6595 5.6285 5.5977 5.5670 5.5364 5.5059 5.4755 5.4453 5.4152
6000 6050 6100 6150 6200 6250 6300 6350 6400 6450	6006 6056 6106 6156 6206 6256 6306 6356 6406 6457	249.150 248.825 248.500 248.175 247.850 247.525 247.200 246.875 246.550 246.225	-24.000 -24.325 -24.650 -24.975 -25.625 -25.625 -25.950 -26.600 -26.925	249.150 248.825 248.500 248.175 247.850 247.525 247.200 246.550 246.550	4.71810 + 2 4.68584 4.65376 4.62186 4.59014 4.55859 4.52722 4.49602 4.46500 4.43415	3.53886 + 2 3.51467 3.49061 3.46668 3.44289 3.41922 3.37569 3.37230 3.34903 3.32589	4.65640 - 1 4.62456 4.59291 4.56142 4.53011 4.49898 4.46802 4.43723 4.40662 4.37617	6.5970 - 1 6.5604 6.5240 6.4878 6.4517 6.4158 6.3800 6.3444 6.3089	5.3853 - 1 5.3554 5.3257 5.2962 5.2667 5.2374 5.2082 5.1791 5.1501 5.1213
6500 6550 6600 6650 6700 6750 6850 6850 6950	6507 6557 6607 6657 6707 6757 6807 6857 6907 6958	245.900 245.575 245.250 244.925 244.600 244.275 243.925 243.625 243.300 242.975	-27.250 -27.575 -27.900 -28.225 -28.550 -28.875 -29.200 -29.525 -29.850 -30.175	245.900 245.575 245.250 244.925 244.600 244.275 243.950 243.625 243.300 242.975	4.40348 + 2 4.37298 4.34264 4.31248 4.28249 4.25267 4.22302 4.19353 4.16421 4.13506	3.30288 + 2 3.28000 3.25725 3.23463 3.21213 3.18976 3.16752 3.14541 3.12341 3.10155	4.34590 - 1 4.31579 4.28586 4.25609 4.22649 4.19706 4.16779 4.13869 4.10976 4.08098	6.2384 - 1 6.2034 6.1686 6.1338 6.0993 6.0649 6.0306 5.9965 5.9625 5.9287	5.0926 - 1 5.0640 5.0356 5.0072 4.9790 4.9509 4.9229 4.8851 4.88674 4.8397

Alti	tude	Т	emperatur	e		Pressure		Den	sity
Z, m	H, m	т,°к	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	$ ho$, kg m $^{-3}$	$\frac{\rho}{\rho_{o}}$
3000 3050 3100 3150 3200 3250 3300 3350 3400 3450	2999 3049 3098 3148 3198 3248 3298 3348 3398 3448	268.659 268.335 268.010 267.685 267.360 267.036 266.711 266.386 266.062 265.737	-4.491 -4.815 -5.140 -5.465 -5.790 -6.114 -6.439 -6.7088 -7.413	268.659 268.335 268.010 267.685 267.360 267.036 266.711 266.386 266.062 265.737	7.01211 + 2 6.96768 6.92349 6.87952 6.83577 6.79226 6.74897 6.70590 6.66305 6.62043	5.25952 + 2 5.22619 5.19304 5.16006 5.12725 5.09461 5.06214 5.02984 4.99770 4.96573	6.92042 - 1 6.87657 6.83295 6.78956 6.74638 6.70344 6.66071 6.61821 6.57592 6.53386	9.0925 - 1 9.0459 8.9994 8.9531 8.9069 8.8610 8.8152 8.7697 8.7243 8.6791	7.4225 - 1 7.3844 7.3464 7.3086 7.2710 7.2335 7.1961 7.1589 7.1219 7.0849
3500 3550 3600 3650 3700 3750 3850 3850 3900	3498 3548 3598 3648 3698 3748 3798 3848 3898 3848	265.413 265.088 264.763 264.439 264.114 263.789 263.465 263.140 262.816 262.491	-7.737 -8.062 -8.387 -8.711 -9.036 -9.361 -9.685 -10.010 -10.334	265.413 265.088 264.763 264.439 264.114 263.789 263.465 263.140 262.816 262.491	6.57803 + 2 6.53586 6.49390 6.45216 6.41064 6.36933 6.32824 6.28737 6.24671 6.20627	4.93393 + 2 4.90229 4.87082 4.83952 4.80837 4.77739 4.774657 4.71592 4.68542 4.65509	6.49201 - 1 6.45039 6.40898 6.36778 6.32681 6.28604 6.24549 6.20515 6.16503 6.12511	8.6340 - 1 8.5892 8.5445 8.5400 8.4557 8.4115 8.3676 8.3238 8.2802 8.2367	7.0482 - 1 7.0116 6.9751 6.9388 6.9026 6.8666 6.8307 6.7949 6.7593
4000 4050 4100 4150 4250 4250 4300 4350 4400	3997 4047 4097 4147 4197 4247 4297 4347 4397 4447	262.166 261.842 261.517 261.193 260.868 260.543 260.219 259.894 259.570 259.245	-10.984 -11.308 -11.633 -11.957 -12.282 -12.607 -12.931 -13.256 -13.580 -13.905	262.166 261.842 261.517 261.193 260.868 260.543 260.219 259.894 259.570 259.245	6.16604 + 2 6.12602 6.08621 6.04662 6.00723 5.96805 5.92908 5.89031 5.85175 5.81340	4.62491 + 2 4.59489 4.56504 4.53533 4.50579 4.47640 4.44717 4.41810 4.38918 4.36041	6.08541 - 1 6.04591 6.00663 5.96755 5.92867 5.89001 5.85154 5.81329 5.77523 5.73738	8.1935 - 1 8.1504 8.1075 8.0647 8.0222 7.9798 7.9376 7.8955 7.8536 7.8119	6.6885 - 1 6.6534 6.6183 6.5835 6.5487 6.5141 6.4796 6.4453 6.4111
4500 4550 4600 4650 4700 4750 4850 4900 4950	4497 4547 4597 4647 4697 4746 4796 4846 4846 4846	258.921 258.596 258.272 257.947 257.623 257.298 256.974 256.649 256.325 256.000	-14.229 -14.554 -14.878 -15.223 -15.527 -15.852 -16.176 -16.501 -16.825 -17.150	258.921 258.596 258.272 257.947 257.623 257.298 256.974 256.649 256.325 256.000	5.77525 + 2 5.73731 5.69957 5.66202 5.62468 5.58755 5.55061 5.51386 5.47732 5.44097	4.33180 + 2 4.30333 4.27503 4.24687 4.21886 4.19100 4.16330 4.13574 4.10833 4.08107	5.69973 - 1 5.66228 5.62503 5.58798 5.55113 5.51448 5.47802 5.44176 5.40570 5.36982	7.7704 - 1 7.7290 7.6878 7.6468 7.6059 7.5652 7.5247 7.4844 7.4442 7.4041	6.3432 - 1 6.3094 6.2758 6.2423 6.2089 6.1757 6.1426 6.1097 6.0769 6.07442
5000 5050 5100 5150 5200 5250 5350 5350 5400 5450	\$996 5046 5096 5146 5196 5246 5296 5346 5395 5445	255.676 255.351 255.027 254.702 254.378 254.053 253.729 253.404 253.080 252.755	-17.474 -17.799 -18.123 -18.448 -18.772 -19.097 -19.421 -19.746 -20.070 -20.395	255.676 255.351 255.027 254.702 254.378 254.053 253.729 253.404 253.080 252.755	5.40482 + 2 5.36887 5.33311 5.29754 5.26217 5.22698 5.19199 5.15719 5.12258 5.08816	4.05395 + 2 4.02698 4.00016 3.97348 3.94695 3.92056 3.89432 3.86821 3.84225 3.81643	5.33415 - 1 5.29866 5.26337 5.22827 5.19335 5.15863 5.12410 5.08975 5.05560 5.02162	7.3643 - 1 7.3246 7.2851 7.2457 7.2065 7.1675 7.1286 7.0899 7.0513 7.0129	6.0117 - 1 5.9793 5.9470 5.9149 5.8829 5.8510 5.8192 5.7876 5.7562 5.7562
5500 5550 5600 5650 5700 5750 5850 5850 5900 5950	5495 5545 5595 5645 5695 5745 5795 5845 5895	252.431 252.106 251.782 251.458 251.133 250.809 250.484 250.160 249.836 249.511	-20.719 -21.044 -21.368 -21.692 -22.017 -22.341 -22.666 -22.990 -23.314 -23.639	252.431 252.106 251.782 251.458 251.133 250.809 250.484 250.160 249.836 249.511	5.05393 + 2 5.01988 4.98602 4.95235 4.91886 4.88555 4.85243 4.81949 4.78673 4.75416	3.79076 + 2 3.76522 3.73982 3.71456 3.68945 3.68945 3.63962 3.61491 3.59034 3.56591	4.98784 - 1 4.95424 4.92082 4.88759 4.85453 4.82166 4.78898 4.75647 4.72414 4.69199	6.97%7 - 1 6.9366 6.8987 6.8610 6.8234 6.7859 6.7486 6.7115 6.6746	5.6936 - 1 5.6625 5.6316 5.6008 5.5701 5.5395 5.5091 5.4788 5.4486 5.4186
6000 6050 6100 6150 6200 6250 6300 6350 6400	5994 6044 6094 6144 6294 6294 6344 6394	249.187 248.862 248.538 248.214 247.889 247.565 247.241 246.592 246.592	-23.963 -24.288 -24.612 -24.936 -25.261 -25.585 -25.909 -26.934 -26.558 -26.882	249.187 248.862 248.538 248.214 247.889 247.565 247.241 246.5916 246.592 246.267	4.72176 + 2 4.68954 4.65750 4.62564 4.59396 4.56246 4.53112 4.49997 4.46899	3.54161 + 2 3.51745 3.49342 3.46952 3.44576 3.42212 3.39862 3.37525 3.35202 3.32891	4.66001 - 1 4.62822 4.59660 4.56516 4.53389 4.50279 4.47187 4.44112 4.41055 4.38014	6.6011 - 1 6.5646 6.5283 6.4921 6.4561 6.4202 6.3845 6.3135 6.2782	5.3887 - 1 5.3589 5.3292 5.2997 5.2703 5.2410 5.2118 5.1828 5.1539 5.1251
6500 6550 6600 6650 6750 6750 6850 6950	6493 6593 6643 6693 6743 6793 6843 6893	245.043 245.619 245.970 244.646 244.646 244.322 243.673 243.673 243.624	-27.207 -27.531 -27.855 -28.180 -28.504 -28.828 -29.153 -29.477 -29.801 -30.126	245,943 245,619 245.294 244.646 244.322 243.673 243.673 243.673 243.024	4.40754 + 2 4.37708 4.314679 4.31667 4.28671 4.25693 4.22732 4.19787 4.16859 4.13947	3.30593 + 2 3.28308 3.26036 3.23777 3.21530 3.19296 3.17075 3.14866 3.12670 3.10486	4.34991 - 1 4.31984 4.28995 4.26022 4.23066 4.20126 4.17204 4.14297 4.11408 4.08534	6.2431 - 1 6.2081 6.1733 6.1387 6.1041 6.0698 6.0356 6.0015 5.9676 5.9338	5.0964 - 1 5.0679 5.0394 5.0111 4.9830 4.9549 4.9270 4.8992 4.8715 4.8439

Alti	tude	Т	emperatur	e		Pressure		Den	sity
H, m	Z, m	т, °к	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	ho, kg m ⁻³	$\frac{\rho}{\rho_o}$
7000 7050 7100 7150 7200 7250 7300 7350 7400 7450	7008 7058 7108 7158 7158 7208 7308 7359 7409 7459	242.650 242.325 242.000 241.675 241.350 241.025 240.700 240.375 240.050 239.725	-30.500 -30.825 -31.155 -31.475 -31.800 -32.125 -32.450 -32.775 -33.100 -33.425	242.650 242.325 242.000 241.675 241.350 241.025 240.700 240.375 240.050 239.725	4.10607 + 2 4.07725 4.04859 4.02009 3.99176 3.96359 3.93558 3.90773 3.88004 3.85251	3.07981 + 2 3.05819 3.03669 3.01532 2.99407 2.97294 2.95193 2.93104 2.91027 2.88962	4.05238 - 1 4.02393 3.99565 3.96752 3.93956 3.91176 3.88411 3.85663 3.82930 3.80213	5.8950 - 1 5.8615 5.8281 5.7949 5.7618 5.7288 5.6960 5.6634 5.6308 5.5985	4.8122 - 1 4.7849 4.7576 4.7305 4.7035 4.6766 4.6498 4.6231 4.5766
7500 7550 7600 7650 7700 7750 7800 7850 7900 7950	7509 7559 7609 7659 7709 7759 7810 7860 7910	239.400 239.075 238.750 238.425 238.100 237.775 237.450 237.125 236.800 236.475	-33.750 -34.075 -34.400 -34.725 -35.375 -35.375 -35.700 -36.025 -36.350 -36.675	239.400 239.075 238.750 238.425 238.100 237.775 237.450 237.125 236.800 236.475	3.82514 + 2 3.79792 3.77087 3.774396 3.71722 3.69063 3.66419 3.63791 3.61178 3.58580	2.86909 + 2 2.84868 2.82838 2.80820 2.78814 2.76820 2.74837 2.72866 2.70906 2.68957	3.77512 - 1 3.74826 3.72156 3.69501 3.66861 3.64237 3.61628 3.59034 3.56455 3.53891	5.5662 ~ 1 5.5341 5.5022 5.4704 5.4387 5.4072 5.3758 5.3446 5.3135 5.2825	4.5439 - 1 4.5177 4.4916 4.4656 4.4398 4.4140 4.3884 4.3629 4.3375 4.3122
8000 8050 8100 8150 8200 8250 8300 8350 8450	8010 8060 8110 8160 8211 8261 8311 8361 8411	236.150 235.825 235.500 235.175 234.850 234.525 234.200 233.875 233.550 233.225	-37.000 -37.325 -37.650 -37.975 -38.300 -38.625 -38.950 -39.275 -39.600 -39.925	236.150 235.825 235.500 235.175 234.850 234.525 234.525 238.750 233.875 233.550	3.55998 + 2 3.53430 3.50878 3.45817 3.45817 3.43309 3.40816 3.38338 3.35874 3.33425	2.67020 + 2 2.65094 2.63180 2.61276 2.59384 2.57503 2.55633 2.53774 2.51926 2.50089	3.51342 - 1 3.48808 3.46289 3.43785 3.41295 3.38820 3.36360 3.33913 3.31482 3.29065	5.2517 - 1 5.2210 5.1904 5.1600 5.1297 5.0996 5.0397 5.0100 4.9804	4.2871 - 1 4.2620 4.2371 4.2123 4.1875 4.1629 4.1384 4.1140 4.0898 4.0656
8500 8550 8600 8650 8700 8750 8800 8850 8950	8511 8562 8612 8662 8712 8762 8812 8862 8912	232.900 232.575 232.250 231.925 231.600 231.275 230.950 230.625 230.300 229.975	-40.250 -40.575 -40.900 -41.225 -41.875 -42.200 -42.525 -42.850 -43.175	232.900 232.575 232.250 231.925 231.600 231.275 230.950 230.625 230.300 229.975	3.30990 + 2 3.28570 3.26164 3.23772 3.21394 3.19031 3.16682 3.14346 3.12025 3.09718	2.48263 + 2 2.46447 2.44643 2.42849 2.41066 2.39293 2.37531 2.35779 2.34038 2.32307	3.26662 - 1 3.24273 3.21898 3.17538 3.17191 3.14859 3.12540 3.10236 3.07945 3.05668	4.9509 - 1 4.9216 4.8924 4.8633 4.8343 4.8055 4.7769 4.7483 4.7199	4.0415 - 1 4.0176 3.9938 3.9700 3.9464 3.9229 3.8995 3.8762 3.8530 3.8299
9000 9050 9100 9150 9200 9250 9350 9350 9450	9013 9063 9113 9163 9213 9263 9314 9364 9414	229.650 229.325 229.000 228.675 228.025 227.700 227.375 227.050 226.725	- 43.500 - 63.825 - 64.150 - 44.800 - 45.125 - 45.450 - 45.775 - 46.100 - 46.425	229.650 229.325 229.000 228.675 228.350 228.025 227.700 227.375 227.050 226.725	3.07424 + 2 3.05144 3.02878 3.00626 2.98387 2.96162 2.93950 2.91751 2.89566 2.87394	2.30587 + 2 2.28877 2.27177 2.25488 2.23809 2.22140 2.20481 2.18832 2.17193 2.15564	3.03404 - 1 3.01154 2.98918 2.96695 2.94485 2.92289 2.90106 2.87936 2.85780 2.83636	4.6635 - 1 4.6355 4.6376 4.5798 4.5522 4.5246 4.4973 4.4700 4.4429	3.8069 - 1 3.7840 3.7613 3.7386 3.7160 3.6936 3.6712 3.6490 3.6268 3.6048
9500 9550 9600 9650 9700 9750 9800 9850 9850 9950	9514 9564 9615 9665 9715 9765 9815 9865 9915	226.400 226.075 225.750 225.425 225.100 224.775 224.450 224.125 223.800 223.475	-46.750 -47.075 -47.400 -47.725 -48.375 -48.700 -49.025 -49.675	226.400 226.075 225.750 225.425 225.100 224.775 224.450 224.125 223.475	2.85236 + 2 2.83090 2.80958 2.78838 2.76732 2.74638 2.72558 2.70490 2.68435 2.66392	2.13944 + 2 2.12335 2.10736 2.09146 2.07566 2.05996 2.04435 2.02884 2.01343 1.99811	2.81506 - 1 2.79388 2.77284 2.75192 2.73113 2.71047 2.68994 2.66953 2.64924 2.62909	4.3890 - 1 4.3623 4.3356 4.3091 4.2827 4.2565 4.2304 4.2044 4.1785 4.1527	3.5829 - 1 3.5610 3.5393 3.5177 3.4961 3.4747 3.4534 3.4321 3.4110 3.3900
10000 10050 10100 10150 10200 10250 10350 10400 10450	10016 10066 10116 10166 10216 10267 10317 10367 10417 10467	223.150 222.825 222.500 222.175 221.850 221.525 221.200 220.875 220.550 220.225	-50.000 -50.325 -50.650 -50.975 -51.300 -51.625 -51.950 -52.275 -52.600 -52.925	223.150 222.825 222.500 222.175 221.850 221.525 221.525 221.525 220.550 220.225	2.64362 + 2 2.62345 2.60340 2.58348 2.56367 2.54400 2.52444 2.50501 2.48570 2.46650	1.98288 + 2 1.96775 1.95271 1.93777 1.92291 1.90815 1.89349 1.87891 1.86442 1.85003	2.60905 - 1 2.58914 2.56936 2.54969 2.53015 2.51073 2.49143 2.47225 2.47225 2.43425	4.1271 - 1 4.1015 4.0761 4.0509 4.0257 4.0007 3.9757 3.97509 3.9263 3.9017	3.3690 - 1 3.3482 3.3275 3.3068 3.2863 3.2658 3.2455 3.2253 3.2051 3.1851
10500 10550 10600 10650 10700 10750 10800 10850 10900	10517 10568 10618 10668 10718 10768 10818 10869 10919	219.900 219.575 219.250 218.925 218.600 218.275 217.950 217.625 217.300 216.975	-53.250 -53.575 -53.900 -54.225 -54.550 -54.875 -55.200 -55.525 -55.850 -56.175	219.900 219.575 219.250 218.925 218.600 218.275 217.925 217.625 217.300 216.975	2.44743 + 2 2.42848 2.40965 2.39093 2.37234 2.35386 2.33550 2.31725 2.29912 2.28110	1.83573 + 2 1.82151 1.80738 1.79335 1.77940 1.76554 1.75177 1.73808 1.72448 1.71097	2.41543 - 1 2.37674 2.37814 2.35967 2.34131 2.32308 2.30496 2.28695 2.26905 2.25127	3.8772 - 1 3.8529 3.8287 3.8046 3.7806 3.7568 3.7330 3.7094 3.6859 3.6625	3.1651 - 1 3.1452 3.1255 3.1058 3.0862 3.0668 3.0474 3.0281 3.0089 2.9898

Altit	lude	Т	emperatur	e		Pressure		Den	sity
Z, m	H, m	T,°K	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	ρ , kg m ⁻³	$\frac{\rho}{\rho_{o}}$
7000 7050 7100 7150 7200 7250 7300 7350 7400 7450	6992 7042 7092 7142 7192 7242 7292 7342 7341 7441	242.700 242.376 242.051 241.727 241.403 241.079 240.754 240.430 240.106 239.782	-30.450 -30.774 -31.099 -31.423 -31.747 -32.071 -32.370 -33.720 -33.044 -33.368	242.700 242.376 242.051 241.727 241.403 241.079 240.754 240.430 240.106 239.782	4.11052 + 2 4.08174 4.05312 4.02466 3.96823 3.96823 3.94026 3.91245 3.88479 3.85730	3.08315 + 2 3.06156 3.04009 3.01874 2.99752 2.97642 2.975544 2.93458 2.91384 2.89321	4.05677 - 1 4.02836 4.00012 3.97203 3.94411 3.91634 3.88873 3.86128 3.83399 3.80686	5.9002 - 1 5.8667 5.8334 5.8002 5.7671 5.7342 5.7015 5.6689 5.6364 5.6041	4.8165 - 1 4.7891 4.7619 4.7348 4.7079 4.6810 4.6543 4.6277 4.6012 4.5748
7500 7550 7600 7650 7700 7750 7800 7850 7900 7950	7491 7541 7591 7641 7691 7741 7790 7840 7890	239.457 239.133 238.809 238.485 238.161 237.836 237.512 237.188 236.864 236.540	-33.693 -34.017 -34.341 -34.665 -34.989 -35.314 -35.638 -35.962 -36.286 -36.610	239.457 239.133 238.809 238.485 238.161 237.836 237.512 237.188 236.864 236.540	3.82996 + 2 3.80279 3.77577 3.74890 3.72219 3.69564 3.66924 3.64299 3.61689 3.59095	2.87271 + 2 2.85232 2.83206 2.81191 2.79187 2.77196 2.75215 2.73247 2.71289 2.69343	3.77988 - 1 3.75306 3.72639 3.67988 3.67352 3.64731 3.62125 3.59535 3.59535 3.59600	5.5719 - 1 5.5399 5.5080 5.4762 5.4146 5.4131 5.3818 5.3506 5.3196 5.2886	4.5485 - 1 4.5224 4.4704 4.4704 4.4189 4.3933 4.3678 4.3425
8000 8050 8100 8150 8200 8250 8300 8350 8400 8450	7990 8040 8090 8140 8189 8239 8239 8339 8339	236.215 235.891 235.567 235.243 234.595 234.595 234.270 233.622 233.622	-36.935 -37.259 -37.583 -37.907 -38.231 -38.555 -38.880 -39.204 -39.528 -39.852	236.215 235.891 235.567 235.243 234.595 234.595 234.270 233.622 233.622	3.56516 + 2 3.53952 3.51403 3.46868 3.46349 3.46349 3.4355 3.38880 3.36419 3.33973	2.67409 + 2 2.65486 2.63574 2.61673 2.59783 2.57905 2.56037 2.54181 2.52335 2.50500	3.51854 - 1 3.49323 3.46807 3.44306 3.41820 3.39348 3.36891 3.34448 3.32020 3.29606	5.2579 - 1 5.2272 5.1967 5.1663 5.1361 5.1060 5.0761 5.0462 5.0165 4.9870	4.2921 - 1 4.2671 4.2422 4.2174 4.1927 4.1682 4.1437 4.1194 4.0951
8500 8550 8600 8650 8700 8750 8800 8850 8900 8950	8489 8539 8588 8638 8638 8738 8738 8838 8838	232.974 232.650 232.326 232.001 231.677 231.353 231.029 230.705 230.381 230.057	-40.176 -40.500 -40.824 -41.149 -41.473 -41.797 -42.145 -42.769 -43.093	232.974 232.650 232.326 232.001 231.677 231.353 231.029 230.705 230.381 230.057	3.31541 + 2 3.29124 3.26721 3.24333 3.21958 3.19598 3.17252 3.14920 3.12602 3.10297	2.48677 + 2 2.46864 2.45061 2.43270 2.41489 2.39718 2.37959 2.36209 2.34470 2.32742	3.27206 - 1 3.24820 3.22449 3.20092 3.17748 3.15419 3.13103 3.10802 3.08514 3.06239	4.9576 - 1 4.9283 4.8991 4.8701 4.8412 4.8125 4.7838 4.7553 4.7270	4.0470 - 1 4.0231 3.9993 3.9756 3.9520 3.9285 3.9052 3.8819 3.8588 3.8357
9000 9050 9100 9150 9200 9250 9300 9350 9400 9450	8987 9037 9087 9137 9187 9237 9286 9336 9386 9436	229.733 229.409 229.085 228.760 228.436 228.112 227.788 227.464 227.140 226.816	-43.417 -43.741 -44.065 -44.370 -44.714 -45.038 -45.362 -45.686 -46.010 -46.334	229.733 229.409 229.085 228.760 228.436 228.112 227.788 227.464 227.140 226.816	3.08007 + 2 3.05730 3.03467 3.01217 2.98981 2.96759 2.94550 2.92354 2.90172 2.88002	2.31024 + 2 2.29316 2.27619 2.25931 2.24254 2.22587 2.20930 2.19283 2.17647 2.16020	3.03979 - 1 3.01732 2.99498 2.97278 2.95071 2.95071 2.92878 2.90698 2.88531 2.86377 2.84236	4.6706 - 1 4.6427 4.6148 4.5571 4.5595 4.5320 4.5047 4.4775 4.4775	3.8128 - 1 3.7899 3.7672 3.7446 3.7220 3.6996 3.6773 3.6551 3.6330 3.6110
9500 9550 9600 9650 9700 9750 9800 9850 9950	9486 9536 9586 9635 9685 9735 9735 9835 9885	226.492 226.168 225.844 225.520 225.196 224.872 224.548 224.224 223.900 223.576	-46.658 -46.982 -47.306 -47.630 -47.954 -48.278 -48.602 -48.926 -48.9250 -49.250	226.492 226.168 225.844 225.520 225.196 224.872 224.548 224.224 223.576	2.85846 + 2 2.83704 2.81574 2.79457 2.77353 2.75262 2.73184 2.71119 2.69066 2.67026	2.14402 + 2 2.12795 2.11198 2.09610 2.08032 2.06464 2.04905 2.03356 2.01816 2.00286	2.82109 - 1 2.79994 2.77892 2.75803 2.73726 2.71663 2.69612 2.67573 2.65548 2.63534	4.3966 - 1 4.3699 3.3433 4.3169 4.2905 4.2643 4.2382 4.2123 4.1864 4.1607	3.5891 - 1 3.5673 3.5456 3.5240 3.5025 3.4811 3.4598 3.4386 3.4175 3.3965
10000 10050 10100 10150 10200 10250 10300 10350 10400 10450	9984 10034 10084 10184 10184 10283 10283 10383 10383	223.252 222.928 222.604 222.280 221.956 221.632 221.338 220.984 220.660 220.336	-49.898 -50.222 -50.546 -50.870 -51.194 -51.518 -51.842 -52.166 -52.490 -52.814	223.252 222.928 222.604 222.280 221.956 221.632 221.308 220.984 220.660 220.336	2.64999 + 2 2.62984 2.60981 2.58991 2.57013 2.55048 2.53094 2.51153 2.49224 2.47307	1.98765 + 2 1.97254 1.95752 1.94259 1.92776 1.91302 1.89836 1.88381 1.86934 1.85496	2.61533 - 1 2.59545 2.57568 2.55604 2.53652 2.51713 2.49785 2.47869 2.45965 2.44073	4.1351 - 1 4.1096 4.0843 4.0590 4.0339 4.0089 3.9840 3.9593 3.9346 3.9101	3.3756 - 1 3.3548 3.3341 3.3135 3.2930 3.2726 3.2523 3.2523 3.2321 3.2119 3.1919
10500 10550 10600 10650 10700 10750 10800 10850 10900 10950	10483 10533 10582 10632 10682 10782 10782 10832 10881 10931	220.013 219.689 219.365 219.041 218.717 218.393 218.069 217.745 217.421 217.097	-53.137 -53.461 -53.785 -54.109 -54.433 -54.757 -55.081 -55.405 -55.729 -56.053	220.013 219.689 219.365 219.041 218.717 218.393 218.069 217.421 217.421	2.45402 + 2 2.43509 2.41628 2.39759 2.37901 2.36055 2.34221 2.32398 2.30587 2.28788	1.84067 + 2 1.82647 1.81236 1.79834 1.78441 1.77056 1.75680 1.74313 1.72955 1.71605	2.42193 - 1 2.40325 2.38468 2.36624 2.34790 2.32968 2.31158 2.29359 2.27572 2.25796	3.8857 - 1 3.8614 3.8372 3.8372 3.7892 3.7654 3.7417 3.7181 3.6946 3.6713	3.1720 - 1 3.1522 3.1524 3.1128 3.0933 3.0738 3.0545 3.0552 3.0160 2.9970

Alti	tude	7	emperatur	e		Pressure		Den	sity
H, m	Z, m	Т, °К	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	ρ , kg m ⁻³	$\frac{\rho}{\rho_{o}}$
11000 11100 11200 11300 11400 11500 11600 11700 11800	11019 11119 11220 11320 11420 11521 11621 11722 11822 11922	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	2.26320 + 2 2.22779 2.19294 2.15863 2.12486 2.09161 2.05889 2.02668 1.99497 1.96376	1.69754 + 2 1.67098 1.64484 1.61911 1.59377 1.56884 1.54430 1.52013 1.49635 1.47294	2.23361 - 1 2.19866 2.16426 2.13040 2.09707 2.06426 2.03197 2.00018 1.96888 1.93808	3.6392 - 1 3.5822 3.5262 3.4710 3.4167 3.3633 3.3106 3.2589 3.2079 3.1577	2.9708 - 1 2.9243 2.8785 2.8335 2.7892 2.7455 2.7026 2.6603 2.6187 2.5777
12000 12100 12200 12300 12400 12500 12600 12700 12800 12900	12023 12123 12223 12324 12424 12525 12625 12725 12826 12926	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	1.93304 + 2 1.90279 1.87302 1.84372 1.81488 1.78648 1.75853 1.73102 1.70394	1.44990 + 2 1.42721 1.40488 1.38290 1.36127 1.33997 1.31901 1.29837 1.27806 1.25806	1.90776 - 1 1.87791 1.84853 1.81961 1.79114 1.76312 1.73554 1.70838 1.68165 1.65534	3.1083 - 1 3.0596 3.0118 2.9647 2.9183 2.8726 2.8277 2.7834 2.7399 2.6970	2.5374 - 1 2.4977 2.4586 2.4201 2.3823 2.3450 2.3083 2.2722 2.2366 2.2017
13000 13100 13200 13300 13400 13500 13600 13700 13800 13900	13027 13127 13227 13328 13428 13428 13529 13629 13730 13830 13930	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	1.65104 + 2 1.62521 1.59978 1.57475 1.55011 1.52586 1.50199 1.47849 1.45536 1.43259	1.23838 + 2 1.21900 1.19993 1.18116 1.16268 1.14449 1.12658 1.10896 1.09161	1.62945 - 1 1.60395 1.57886 1.55416 1.52984 1.50591 1.48235 1.45916 1.43633 1.41386	2.6548 - 1 2.6133 2.5724 2.5322 2.4925 2.4925 2.4152 2.3774 2.3402 2.3036	2.1672 - 1 2.1333 2.0999 2.0671 2.0347 2.0029 1.9716 1.9407 1.9104 1.8805
14000 14100 14200 14300 14400 14500 14700 14800 14900	14031 14131 14232 14332 14433 14533 14634 14734 14835 14935	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	1.41018 + 2 1.38811 1.36640 1.34502 1.32398 1.30326 1.28287 1.26280 1.24305 1.22360	1.05772 + 2 1.04117 1.02488 1.00885 9.93064 + 1 9.77527 9.62234 9.47179 9.32361 9.17774	1.39174 - 1 1.36996 1.34853 1.32743 1.30666 1.28622 1.26610 1.24629 1.22679 1.20760	2.2675 - 1 2.2321 2.1971 2.1628 2.1289 2.0956 2.0628 2.0306 1.9988 1.9675	1.8510 - 1 1.8221 1.7936 1.7655 1.7379 1.7107 1.6839 1.6576 1.6317
15000 15100 15200 15300 15400 15500 15600 15700 15800 15900	15035 15136 15236 15337 15437 15538 15638 15638 15739 15839	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	1.20445 + 2 1.18561 1.16706 1.14880 1.13083 1.11314 1.09572 1.07858 1.06170 1.04509	9.03415 + 1 8.89281 8.75368 8.61672 8.48191 8.34921 6.21859 8.09001 7.96344 7.83885	1.18870 - 1 1.17011 1.15180 1.13378 1.11604 1.09858 1.08139 1.06447 1.04782 1.03143	1.9367 - 1 1.9064 1.8766 1.8472 1.8183 1.7899 1.7619 1.7343 1.7072	1.5810 - 1 1.5563 1.5319 1.5080 1.4844 1.4611 1.4383 1.4158 1.3936
16000 16100 16200 16300 16400 16500 16600 16700 16800 16900	16040 16141 16241 16342 16442 16543 16643 16744 16845 16945	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	1.02874 + 2 1.01265 9.96805 + 1 9.81210 9.65859 9.50748 9.35873 9.21231 9.06818 8.92631	7.71621 + 1 7.59549 7.47665 7.35968 7.24454 7.13119 7.01963 6.90980 6.80170 6.69528	1.01529 - 1 9.99406 - 2 9.83770 9.68379 9.53229 9.38315 9.23635 9.09185 8.94960 8.80958	1.6542 - 1 1.6283 1.6028 1.5778 1.5531 1.5288 1.5049 1.4813 1.4581	1.3504 - 1 1.3292 1.3084 1.2880 1.2678 1.2480 1.2285 1.2092 1.1903 1.1717
17000 17100 17200 17300 17400 17500 17600 17700 17800 17900	17046 17146 17247 17347 17347 17548 17549 17749 17750	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	8.78666 + 1 8.64919 8.51387 8.38067 8.24955 8.12049 7.99344 7.86838 7.74528 7.62410	6.59053 + 1 6.48742 6.38593 6.28602 6.18767 6.09087 5.99557 5.90177 5.80944 5.71855	8.67176 - 2 8.53609 8.40254 8.27108 8.14168 8.01430 7.88891 7.76549 7.64400 7.52440	1.4129 - 1 1.3908 1.3690 1.3476 1.3265 1.3058 1.2853 1.2652 1.2454 1.2259	1.1534 - 1 1.1353 1.1176 1.1001 1.0829 1.0659 1.0492 1.0328 1.0167 1.0008
18000 18100 18200 18300 18400 18500 18600 18700 18800	18051 18152 18252 18353 18453 18455 18655 18755 18755 18856 18956	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	7.50482 + 1 7.38741 7.27183 7.15806 7.04607 6.93583 6.82732 6.72051 6.61536 6.51187	5.62908 + 1 5.54101 5.45432 5.36899 5.28499 5.20230 5.12091 5.04080 4.96193 4.88430	7.40668 - 2 7.29080 7.17674 7.06446 6.95393 6.84514 6.73804 6.63263 6.52886 6.42671	1.2068 - 1 1.1879 1.1693 1.1510 1.1330 1.1153 1.0978 1.0806 1.0637	9.8511 - 2 9.6970 9.5452 9.3959 9.2489 9.1042 8.9618 8.8216 8.6835 8.5477

$\begin{tabular}{ll} TABLE & I.-Continued \\ GEOMETRIC & ALTITUDE, & METRIC & UNITS \\ \end{tabular}$

Alti	tude	Т	emperatur	е		Pressure		Den	sity
Z, m	H, m	т,°к	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>Р</u> Р _о	ρ , kg m ⁻³	$\frac{\rho}{\rho_{\rm o}}$
11000 11100 11200 11300 11400 11500 11600 11700 11800	10981 11081 11180 11280 11380 11479 11579 11679 11778	216.774 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.376 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	2.26999 + 2 2.23460 2.19976 2.16547 2.13171 2.09848 2.06576 2.03356 2.00186 1.97066	1.70263 + 2 1.67609 1.64996 1.62423 1.59891 1.57399 1.54945 1.52530 1.50152 1.47812	2.24031 - 1 2.20538 2.17100 2.13715 2.10383 2.07103 2.03875 2.00697 1.97568 1.94489	3.6480 - 1 3.5932 3.5372 3.4820 3.4277 3.3743 3.3217 3.2699 3.2189 3.1688	2.9780 - 1 2.9332 2.8875 2.8425 2.7982 2.7545 2.7116 2.6693 2.6277 2.5868
12000 12100 12200 12300 12400 12500 12600 12700 12800 12900	11977 12077 12177 12276 12376 12475 12575 12575 12675 12774 12874	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	1.93994 + 2 1.90970 1.87994 1.85064 1.82180 1.79341 1.76546 1.73795 1.71086 1.68420	1.45508 + 2 1.43240 1.41007 1.38809 1.36646 1.34517 1.32420 1.30357 1.28325 1.26326	1.91457 - 1 1.88473 1.85536 1.82644 1.79797 1.76995 1.74237 1.71522 1.68849 1.66218	3.1194 - 1 3.0708 3.0229 2.9758 2.9294 2.8888 2.8388 2.7946 2.7510 2.7082	2.5464 - 1 2.5067 2.4677 2.4292 2.3914 2.3541 2.3174 2.2813 2.2457 2.2107
13000 13100 13200 13300 13400 13500 13600 13700 13800 13900	12973 13073 13173 13172 13272 13471 13571 13671 13770 13870	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	1.65796 + 2 1.63213 1.60670 1.58166 1.55702 1.53276 1.50888 1.48538 1.46224 1.43946	1.24357 + 2 1.22420 1.20512 1.18634 1.16786 1.14967 1.13176 1.11412 1.09677 1.07968	1.63628 - 1 1.61078 1.58569 1.556098 1.53666 1.51272 1.48915 1.46595 1.44312 1.42063	2.6660 - 1 2.6244 2.5835 2.5433 2.5037 2.4646 2.4262 2.3884 2.3512 2.3146	2.1763 - 1 2.1424 2.1090 2.0761 2.0438 2.0120 1.9806 1.9498 1.9194 1.8895
14000 14100 14200 14300 14400 14500 14600 14600 14800 14900	13969 14069 14168 14268 14367 14467 14567 14666 14766 14865	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	1.41704 + 2 1.39496 1.37323 1.35184 1.33079 1.31006 1.28966 1.26957 1.24980 1.23034	1.06286 + 2 1.04631 1.03001 1.01397 9.98174 + 1 9.82628 9.67324 9.52259 9.37429 9.22831	1.39851 - 1 1.37672 1.35528 1.33417 1.31339 1.29293 1.27279 1.25297 1.25297 1.25346 1.21425	2.2786 - 1 2.2431 2.2081 2.1737 2.1399 2.1065 2.0737 2.0414 2.0097 1.9784	1.8600 - 1 1.8311 1.8026 1.7745 1.7468 1.7196 1.6928 1.6665 1.6405
15000 15100 15200 15300 15400 15500 15600 15700 15800	14965 15064 15164 15263 15363 15462 15562 15661 15761 15860	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	1.21118 + 2 1.19232 1.17375 1.15548 1.13749 1.11978 1.10234 1.08518 1.06828 1.05165	9.08460 + 1 8.94313 8.80388 8.66679 8.53185 8.39901 8.26824 8.13951 8.01279 7.88805	1.19534 - 1 1.17673 1.15840 1.14037 1.12261 1.10513 1.08793 1.07099 1.05431 1.03790	1.9475 - 1 1.9172 1.8874 1.8580 1.8291 1.8006 1.7725 1.7449 1.7178 1.6910	1.5898 - 1 1.5651 1.5407 1.5167 1.4931 1.4699 1.4470 1.4244 1.4023 1.3804
16000 16100 16200 16300 16400 16500 16600 16700 16800 16900	15960 16059 16159 16258 16358 16457 16557 16656 16756 16855	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	1.03528 + 2 1.01916 1.00330 9.87682 + 1 9.72309 9.57175 9.42276 9.27611 9.13174 8.98962	7.76525 + 1 7.64436 7.52537 7.40823 7.29291 7.17940 7.06765 6.95765 6.84936 6.74277	1.02174 - 1 1.00584 9.90180 - 2 9.74767 9.59594 9.44658 9.29954 9.15481 9.01232 8.87206	1.6647 - 1 1.6388 1.6133 1.5882 1.5634 1.5391 1.5152 1.4916 1.4684 1.4455	1.3589 - 1 1.3378 1.3170 1.2965 1.2763 1.2564 1.2369 1.2176 1.1987 1.1987
17000 17100 17200 17300 17400 17500 17600 17700 17800 17900	16955 17054 17154 17253 17352 17452 17551 17651 17750 17850	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	8.84971 + 1 8.71199 8.57642 8.44296 8.31158 8.18225 8.05493 7.92961 7.80623 7.68478	6.63783 + 1 6.53453 6.43284 6.33274 6.23420 6.13719 6.04170 5.94769 5.85515 5.76406	8.73399 - 2 8.59807 8.46427 8.33255 8.20289 8.07525 7.94960 7.82591 7.70415 7.58429	1.4230 - 1 1.4009 1.3791 1.3576 1.3576 1.3157 1.2952 1.2751 1.2552 1.2357	1.1616 - 1 1.1436 1.1258 1.1083 1.0910 1.0740 1.0573 1.0409 1.0247
18000 18100 18200 18300 18400 18500 18600 18700 18800	17949 18049 18148 18247 18347 18446 18546 18645 18745	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	7.56522 + 1 7.44752 7.33166 7.21761 7.10533 6.99481 6.88600 6.77889 6.67345 6.56966	5.67438 + 1 5.58610 5.49720 5.41365 5.32944 5.24654 5.16493 5.08459 5.00550 4.92765	7.46629 - 2 7.35014 7.23579 7.12323 7.01242 6.90334 6.79596 6.69025 6.58619 6.48375	1.2165 - 1 1.1975 1.1789 1.1606 1.1425 1.1247 1.1073 1.0900 1.0731	9.9304 - 2 9.7759 9.6238 9.4741 9.3267 9.1816 9.0388 8.8982 8.7598 8.6236

Alti	tude	Т	emperatur	e		Pressure		Den	sity
H, m	Z, m	т, °к	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	ho, kg m ⁻³	$\frac{\rho}{\rho_{o}}$
19000 19100 19200 19300 19400 19500 19600 19700 19800 19900	19057 19158 19258 19259 19459 19459 19661 19661 19761 19862 19963	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	6.40999 + 1 6.30970 6.21098 6.11381 6.01816 5.92401 5.83132 5.74009 5.65029 5.56189	4.80788 + 1 4.73267 4.65862 4.58574 4.51399 4.44337 4.37385 4.30542 4.23806 4.17176	6.32616 - 2 6.22719 6.12977 6.03386 5.93946 5.84654 5.75507 5.66503 5.57640 5.48916	1.0307 - 1 1.0146 9.9871 - 2 9.8309 9.6771 9.5257 9.3766 9.2299 9.0855 8.9434	8.4140 - 2 8.2823 8.1527 8.0252 7.8996 7.7760 7.6544 7.5346 7.4168 7.3007
20000 20100 20200 20300 20400 20500 20600 20700 20800 20900	20063 20164 20264 20365 20466 20566 20667 20768 20868 20969	216.650 216.750 216.850 216.950 217.050 217.150 217.350 217.450 217.450	-56.500 -56.400 -56.300 -56.200 -56.000 -55.900 -55.700 -55.600	216.650 216.750 216.850 216.950 217.050 217.150 217.250 217.350 217.450 217.550	5.47487 + 1 5.38924 5.30498 5.22208 5.14051 5.06025 4.98128 4.90358 4.82712 4.75189	4.10649 + 1 4.04226 3.97906 3.91688 3.85570 3.79550 3.73627 3.67799 3.62064 3.56421	5.40328 - 2 5.31876 5.23561 5.15379 5.07329 4.99408 4.91614 4.83945 4.76400 4.68976	8.8035 - 2 8.6618 8.5224 8.3854 8.2506 8.1180 7.9877 7.8594 7.7333 7.6093	7.1865 - 2 7.0708 6.9571 6.8452 6.7352 6.6270 6.5205 6.4159 6.3129 6.2117
21000 21100 21200 21300 21400 21500 21600 21700 21800 21900	21070 21170 21271 21372 21472 21573 21674 21774 21875 21976	217.650 217.750 217.850 217.950 218.050 218.150 218.250 218.350 218.450 218.550	-55.500 -55.400 -55.300 -55.200 -55.100 -54.900 -54.900 -54.700 -54.600	217.650 217.750 217.850 217.950 218.050 218.150 218.250 218.350 218.450 218.550	4.67787 + 1 4.60504 4.53337 4.46285 4.39345 4.32517 4.25798 4.19186 4.12680 4.06278	3.50869 + 1 3.45406 3.40031 3.34741 3.29536 3.24414 3.19375 3.14415 3.09536 3.04733	4.61670 - 2 4.54482 4.47409 4.40449 4.33600 4.26861 4.20230 4.13705 4.07284 4.00965	7.4873 - 2 7.3674 7.2494 7.1333 7.0192 6.9069 6.7965 6.6879 6.5811 6.4761	6.1121 - 2 6.0142 5.9179 5.8231 5.7300 5.6383 5.5482 5.4595 5.3723 5.2866
22000 22100 22200 22300 22400 22500 22600 22700 22800 22900	22076 22177 22278 22379 22479 22580 22681 22781 22882 22983	218.450 218.750 218.850 218.950 219.050 219.150 219.250 219.350 219.450 219.550	-54.500 -54.400 -54.300 -54.200 -54.000 -53.900 -53.700 -53.600	218.650 218.750 218.850 218.950 219.050 219.150 219.250 219.350 219.450 219.550	3.99978 + 1 3.93778 3.87678 3.81674 3.75766 3.69953 3.64231 3.58601 3.53061 3.47608	3.00008 + 1 2.95358 2.90782 2.86279 2.81848 2.77487 2.73196 2.68973 2.64817 2.60727	3.94747 - 2 3.88629 3.82608 3.76683 3.70852 3.65115 3.59468 3.53912 3.48444 3.43062	6.3727 - 2 6.2711 6.1711 6.0728 5.9760 5.8809 5.7873 5.6052 5.6047 5.5156	5.2022 - 2 5.1192 5.0376 4.9574 4.8784 4.8007 4.7243 4.6492 4.5753 4.5026
23000 23100 23200 23300 23400 23500 23600 23700 23800 23900	23084 23184 23285 23386 23486 23587 23688 23789 23889 23990	219.650 219.750 219.850 219.950 220.050 220.150 220.250 220.350 220.450 220.550	-53.500 -53.400 -53.300 -53.200 -53.000 -52.900 -52.800 -52.700 -52.600	219.650 219.750 219.850 219.950 220.050 220.150 220.250 220.350 220.450 220.550	3.42242 + 1 3.36961 3.31765 3.26650 3.21617 3.16663 3.11788 3.06991 3.02269 2.97622	2.56703 + 1 2.52742 2.48844 2.45008 2.41232 2.37517 2.33861 2.30262 2.26720 2.23235	3.37767 - 2 3.32555 3.27426 3.22379 3.17411 3.12523 3.07711 3.02976 2.98316 2.93730	5.4280 - 2 5.3418 5.2570 5.1737 5.0916 5.0109 4.9315 4.8534 4.7766	4.4310 - 2 4.3607 4.2915 4.2234 4.1564 4.0905 4.0257 3.9620 3.8993 3.8376
24000 24100 24200 24300 24400 24500 24600 24700 24800 24900	24091 24192 24292 24393 24494 24595 24696 24796 24897 24998	220.650 220.750 220.850 220.950 221.050 221.150 221.350 221.450 221.550	-52.500 -52.400 -52.300 -52.200 -52.000 -51.900 -51.700 -51.600	220.650 220.750 220.850 220.950 221.050 221.150 221.250 221.350 221.450 221.550	2.93048 + 1 2.88547 2.884117 2.79756 2.75465 2.71241 2.67084 2.62993 2.58966 2.55002	2.1980 + 1 2.16428 2.13105 2.09835 2.06616 2.03448 2.00330 1.97261 1.94240 1.91268	2.89216 - 2 2.84774 2.80401 2.76098 2.71863 2.67694 2.63592 2.59554 2.55580 2.51668	4.6267 - 2 4.5536 4.4816 4.4109 4.3412 4.2727 4.2054 4.1391 4.0739 4.0097	3.7769 - 2 3.7172 3.6585 3.6007 3.5439 3.4880 3.4329 3.3788 3.3256 3.2732
2500 25100 25200 25300 25400 25500 25600 25700 25800 25900	25099 25200 25300 25401 25502 25603 25704 25804 25905 26006	221.650 221.750 221.850 221.950 222.050 222.150 222.350 222.350 222.350 222.550	-51.500 -51.400 -51.300 -51.200 -51.100 -51.000 -50.900 -50.800 -50.700	221.650 221.750 221.850 221.950 222.050 222.150 222.250 222.350 222.450 222.550	2.51101 + 1 2.47262 2.43482 2.39762 2.36101 2.32497 2.28950 2.25458 2.22021 2.18638	1.88341 + 1 1.85461 1.82627 1.77837 1.77090 1.74387 1.71726 1.69107 1.66530 1.63992	2.47818 - 2 2.44028 2.40298 2.36627 2.33013 2.29457 2.25956 2.22510 2.19118 2.15779	3.9466 - 2 3.8845 3.8234 3.7633 3.7041 3.6459 3.5887 3.5324 3.4770 3.4224	3.2217 - 2 3.1710 3.1211 3.0720 3.0230 2.9763 2.9763 2.9295 2.8836 2.8383 2.7938
26000 26100 26200 26300 26400 26500 26600 26700 26800 26900	26107 26208 26308 26409 26510 26611 26712 26813 26913 27014	222.650 222.750 222.850 222.950 223.050 223.250 223.250 223.350 223.450 223.550	-50.500 -50.400 -50.300 -50.200 -50.000 -49.900 -49.800 -49.700 -49.600	222.650 222.750 222.850 222.950 223.050 223.150 223.250 223.450 223.450 223.550	2.15308 + 1 2.12031 2.08804 2.05628 2.02502 1.99425 1.96396 1.93414 1.90479 1.87589	1.61495 + 1 1.59036 1.56616 1.56616 1.54234 1.51889 1.49581 1.47309 1.45072 1.42871	2.12493 - 2 2.09258 2.06074 2.02939 1.99854 1.96817 1.93828 1.90885 1.87988 1.85136	3.3688 - 2 3.3160 3.2641 3.2130 3.1628 3.1133 3.0046 3.0168 2.9696 2.9233	2.7500 - 2 2.7070 2.6646 2.6229 2.5818 2.5415 2.5017 2.4627 2.4242 2.3864

Alti	tude	Ť	emperatur	e		Pressure		Den	sity
Z, m	H, m	т,°к	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P°	ho, kg m ⁻³	$\frac{\rho}{\rho_{o}}$
19000 19100 19200 19300 19400 19500 19600 19700 19800 19900	18943 19043 19142 19242 19341 19440 19540 19639 19739 19838	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650 216.650	6.46748 + 1 6.36689 6.26788 6.17040 6.07445 5.97998 5.88699 5.79545 5.70534 5.61663	4.85101 + 1 4.77556 4.70129 4.62818 4.55621 4.48536 4.41561 4.34695 4.27936 4.21282	6.38291 - 2 6.28364 6.18591 6.08971 5.99501 5.90179 5.81001 5.71967 5.63073 5.54318	1.0400 - 1 1.0238 1.0079 9.9219 - 2 9.7676 9.6157 9.4661 9.3190 9.1740 9.0314	8.4894 - 2 8.3574 8.2274 8.0995 7.9735 7.8495 7.7275 7.6073 7.4090 7.3726
20000 20100 20200 20300 20400 20500 20600 20700 20800 20900	19937 20037 20136 20235 20335 20434 20533 20633 20732 20832	216.650 216.687 216.786 216.985 216.985 217.084 217.183 217.283 217.382 217.481	-56.500 -56.463 -56.364 -56.265 -56.165 -56.066 -55.967 -55.867 -55.768	216.650 216.687 216.786 216.985 217.084 217.183 217.283 217.382 217.481	5.52930 + 1 5.44334 5.35874 5.27550 5.19360 5.11300 5.03369 4.95565 4.87886 4.80329	4.14732 + 1 4.08284 4.01939 3.95695 3.89552 3.89552 3.83506 3.77558 3.71704 3.65945 3.60276	5.45700 - 2 5.37216 5.28867 5.20651 5.12568 5.04614 4.96786 4.89085 4.81506 4.74048	8.8910 - 2 8.7513 8.6113 8.4737 8.3383 8.2051 8.0742 7.9454 7.8187	7.2579 - 2 7.1439 7.0297 6.9173 6.8068 6.6981 6.5912 6.4860 6.3826 6.2809
21000 21100 21200 21300 21400 21500 21600 21700 21800 21900	20931 21030 21130 21229 21328 21428 21527 21626 21725 21825	217.581 217.680 217.780 217.978 217.978 218.177 218.276 218.375 218.475	-55.569 -55.470 -55.370 -55.271 -55.072 -54.973 -54.874 -54.775 -54.675	217.581 217.680 217.780 217.879 217.978 218.078 218.177 218.276 218.375 218.475	4.72893 + 1 4.65576 4.558376 4.51289 4.44317 4.37455 4.30702 4.24057 4.17518 4.11082	3.54699 + 1 3.49211 3.43810 3.38495 3.33265 3.28118 3.23053 3.18069 3.13164 3.08337	4.66709 - 2 4.59488 4.52382 4.45388 4.38507 4.31735 4.25070 4.18512 4.12058 4.05707	7.5715 - 2 7.4509 7.3523 7.2157 7.1010 6.9881 6.8771 6.7679 6.6605 6.5549	6.1808 - 2 6.0824 5.9856 5.8904 5.7967 5.7046 5.6140 5.5248 5.4372 5.3509
22000 22100 22200 22300 22400 22500 22600 22700 22800 22900	21924 22023 22123 22222 22321 22421 22520 22619 22719 22818	218.57% 218.673 218.773 218.773 218.971 219.071 219.170 219.269 219.369 219.468	-54.576 -54.477 -54.377 -54.278 -54.179 -53.089 -53.881 -53.781 -53.682	218.574 218.673 218.773 218.872 218.971 219.071 219.269 219.369 219.468	4.04749 + 1 3.98517 3.92383 3.86346 3.80406 3.74559 3.68805 3.63143 3.57569 3.52084	3.03587 + 1 2.98912 2.94311 2.89784 2.85328 2.80942 2.76627 2.72379 2.68199 2.64085	3.99456 - 2 3.93305 3.87252 3.81294 3.75431 3.69661 3.63982 3.58394 3.52893 3.47480	6.4510 - 2 6.3488 6.2482 6.1493 6.0520 5.9563 5.8621 5.7695 5.6784 5.5887	5.2661 - 2 5.1827 5.1006 5.0198 4.9404 4.8623 4.7854 4.7098 4.6354 4.5622
23000 23100 23200 23300 23400 23500 23600 23700 23800 23900	22917 23016 23116 23215 23314 23413 23513 23612 23711 23810	219.567 219.666 219.766 219.865 219.964 220.063 220.163 220.262 220.361 220.460	-53.583 -53.484 -53.384 -53.285 -53.186 -53.087 -52.987 -52.888 -52.789	219.567 219.666 219.766 219.965 219.964 220.063 220.163 220.262 220.361 220.460	3.46686 + 1 3.41373 3.36144 3.30997 3.25932 3.20947 3.16040 3.11211 3.06457 3.01779	2.60036 + 1 2.56051 2.52129 2.48268 2.44469 2.40730 2.37050 2.33427 2.29862 2.26353	3.42153 - 2 3.36909 3.31748 3.26669 3.21670 3.16750 3.11908 3.07141 3.02450 2.97833	5.5006 - 2 5.4138 5.3285 5.2445 5.1619 5.0807 5.0008 4.9221 4.8448 4.7687	4.4903 - 2 4.4194 4.3498 4.2813 4.2138 4.1475 4.0823 4.0181 3.9549 3.8928
24000 24100 24200 24300 24400 24500 24600 24700 24800 24900	23910 24009 24108 24207 24307 24505 24505 24604 24704 24803	220.560 220.659 220.758 220.857 220.957 221.056 221.155 221.254 221.354 221.453	-52.590 -52.491 -52.392 -52.293 -52.193 -52.094 -51.995 -51.796 -51.697	220.560 220.659 220.758 220.857 220.957 221.056 221.155 221.254 221.354 221.453	2.97174 + 1 2.92642 2.88180 2.83789 2.79467 2.75213 2.71025 2.66904 2.62847 2.58853	2.22899 + 1 2.19499 2.16153 2.12859 2.09618 2.06427 2.03286 2.00194 1.97151	2.93288 - 2 2.88815 2.84412 2.80078 2.75813 2.71614 2.67481 2.63413 2.59409 2.55468	4.6938 - 2 4.6201 4.5476 4.4763 4.4062 4.3372 4.2692 4.2024 4.1367 4.0720	3.8317 - 2 3.7715 3.77124 3.6541 3.5569 3.5405 3.4851 3.4306 3.3769 3.3241
25000 25100 25200 25300 25400 25600 25600 25700 25800 25900	24902 25001 25100 25200 25209 25398 25497 25597 25696 25795	221.552 221.651 221.750 221.949 222.048 222.147 222.246 222.346 222.445	-51.598 -51.499 -51.400 -51.300 -51.201 -51.102 -51.003 -50.903 -50.804 -50.705	221.552 221.651 221.750 221.949 222.048 222.147 222.246 222.346 222.445	2.54922 + 1 2.51052 2.47243 2.43494 2.39803 2.36170 2.32593 2.29073 2.29607 2.22196	1.91207 + 1 1.88305 1.85448 1.82635 1.79867 1.77142 1.74459 1.71819 1.69219	2.51588 - 2 2.47769 2.44010 2.40310 2.36667 2.33081 2.29552 2.26077 2.22657 2.19290	4.0084 - 2 3.9458 3.8842 3.8236 3.7639 3.7052 3.6475 3.5907 3.5348 3.4798	3.2722 - 2 3.2210 3.1707 3.1213 3.0726 3.0247 2.9775 2.9312 2.8855 2.8406
26000 26100 26200 26300 26400 26500 26600 26700 26800 26900	25894 25993 26092 26192 26291 26390 26489 26588 26687 26787	222.544 222.643 222.742 222.842 222.941 223.040 223.139 223.238 223.337 223.437	-50.606 -50.507 -50.408 -50.209 -50.209 -50.110 -50.011 -49.912 -49.813 -49.713	222.544 222.643 222.742 222.842 222.941 223.040 223.139 223.238 223.337 223.437	2.18837 + 1 2.15531 2.12277 2.09073 2.05919 2.02814 1.99757 1.96747 1.93785 1.90868	1.64141 + 1 1.61662 1.59221 1.556817 1.54452 1.52123 1.49830 1.47573 1.45351 1.43163	2.15976 - 2 2.12713 2.09501 2.06339 2.03226 2.00161 1.97145 1.94175 1.91251 1.88372	3.4257 - 2 3.3724 3.3200 3.2684 3.2177 3.1678 3.1186 3.0703 3.0227 2.9759	2.7765 - 2 2.7730 2.7702 2.6681 2.6267 2.5859 2.5458 2.5064 2.4675 2.4293

Altit	tude	Т	emperatur	е		Pressure		Den	sity
H, m	Z, m	T,°K	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	ρ , kg m ⁻³	$\frac{\rho}{\rho_{o}}$
27000 27100 27200 27300 27400 27500 27600 27700 27800 27900	27115 27216 27317 27418 27519 27620 27720 27821 27922 28023	223.650 223.750 223.850 223.950 224.050 224.150 224.250 224.350 224.450 224.550	-49.500 -49.400 -49.300 -49.200 -49.100 -48.900 -48.800 -48.600	223.650 223.750 223.850 223.850 224.050 224.150 224.250 224.350 224.550	1.84745 + 1 1.81945 1.79189 1.76475 1.73804 1.71175 1.68586 1.66038 1.63529 1.61060	1.38570 + 1 1.36470 1.34403 1.32367 1.30364 1.28392 1.26450 1.24539 1.22657 1.20805	1.82329 - 2 1.79566 1.76845 1.74168 1.71531 1.68936 1.66382 1.663867 1.61391 1.58953	2.8777 - 2 2.8328 2.7886 2.7452 2.7024 2.6604 2.6190 2.5782 2.5381 2.4987	2.3491 - 2 2.3125 2.2764 2.2410 2.2061 2.1717 2.1379 2.1047 2.0719 2.0397
28000 28100 28200 28300 28400 28500 28600 28700 28800 28900	28124 28225 28326 28427 28527 28628 28729 28830 28931 29032	224.650 224.750 224.850 224.950 225.050 225.150 225.250 225.350 225.450 225.550	-48.500 -48.400 -48.300 -48.200 -48.000 -47.900 -47.800 -47.600	224.650 224.750 224.850 224.950 225.050 225.150 225.250 225.350 225.450 225.550	1.58628 + 1 1.56235 1.53878 1.51559 1.49275 1.47026 1.44813 1.42633 1.40488 1.38375	1.18981 + 1 1.17186 1.15418 1.13678 1.11965 1.10279 1.08618 1.06984 1.05375	1.56554 - 2 1.54192 1.51866 1.49577 1.47323 1.45104 1.42919 1.40768 1.38651 1.36566	2.4599 - 2 2.4217 2.3841 2.3471 2.3107 2.2749 2.2396 2.2050 2.1708 2.1372	2.0081 - 2 1.9769 1.9462 1.9160 1.8863 1.8571 1.8283 1.8000 1.7721
29000 29100 29200 29300 29400 29500 29600 29700 29800 29900	29133 29234 29335 29436 29537 29638 29738 29839 29840 30041	225.650 225.750 225.850 225.950 226.050 226.150 226.250 226.450 226.450 226.550	-47.500 -47.400 -47.300 -47.200 -47.000 -46.900 -46.800 -46.700 -46.600	225.650 225.750 225.850 225.950 226.050 226.150 226.250 226.450 226.450 226.550	1.36296 + 1 1.34248 1.32232 1.30248 1.28294 1.26370 1.24476 1.22610 1.20774 1.18966	1.02230 + 1 1.00694 9.91825 + 0 9.76939 9.62281 9.47851 9.33643 9.19654 9.05881 8.92321	1.34514 - 2 1.32493 1.30503 1.28545 1.26616 1.24717 1.22848 1.21007 1.19195	2.1042 - 2 2.0717 2.0397 2.0082 1.9771 1.9466 1.9166 1.8871 1.8580 1.8294	1.7177 - 2 1.6912 1.6650 1.6393 1.6140 1.5891 1.5646 1.5405 1.5167
30000 30100 30200 30300 30400 30500 30600 30700 30800 30900	30142 30243 30344 30445 30546 30647 30748 30849 30950 31051	226.650 226.750 226.850 226.950 227.050 227.150 227.350 227.450 227.450	-46.500 -46.400 -46.300 -46.200 -46.000 -45.900 -45.800 -45.700 -45.600	226.650 226.750 226.850 226.950 227.050 227.150 227.350 227.350 227.450 227.550	1.17186 + 1 1.15433 1.13708 1.12008 1.10335 1.08688 1.07066 1.05469 1.03896 1.02348	8.78968 + 0 8.65821 8.52877 8.40132 8.27583 8.15226 8.03060 7.91080 7.79284 7.67669	1.15654 - 2 1.13924 1.12221 1.10544 1.08892 1.07267 1.05666 1.04090 1.02537 1.01009	1.8012 - 2 1.7735 1.7462 1.7193 1.6929 1.6669 1.6413 1.6161 1.5913	1.4704 - 2 1.4477 1.4255 1.4035 1.3820 1.3607 1.3398 1.3193 1.2990 1.2791
31000 31100 31200 31300 31400 31500 31600 31700 31800 31900	31152 31253 31354 31455 31556 31657 31758 31859 31960 32061	227.650 227.750 227.850 227.950 228.050 228.150 228.250 228.350 228.450 228.450	-45.500 -45.400 -45.300 -45.200 -45.000 -44.900 -44.800 -44.600	227.650 227.750 227.850 227.950 228.050 228.150 228.250 228.350 228.450 228.450	1.00823 + 1 9.93213 + 0 9.78429 9.63871 9.49536 9.35421 9.21521 9.07834 8.94356 8.81084	7.56232 + 0 7.44971 7.33882 7.22963 7.12211 7.01623 6.91197 6.80931 6.70822 6.60867	9.95043 - 3 9.80225 9.65634 9.51267 9.37120 9.23188 9.09470 8.955962 8.82661 8.69562	1.5429 - 2 1.5192 1.4960 1.4731 1.4505 1.4283 1.4065 1.3850 1.3638 1.3430	1.2595 - 2 1.2402 1.2212 1.2025 1.1841 1.1660 1.1481 1.1306 1.1133
32000 32200 32400 32600 32800 33000 33200 33400 33600 33800	32162 32364 32566 32768 32970 33172 33374 33576 33779	228.650 229.210 229.770 230.330 230.890 231.450 232.010 232.570 233.130 233.690	-44.500 -43.940 -43.380 -42.820 -41.700 -41.140 -40.580 -40.020 -39.460	228.650 229.210 229.770 230.330 230.890 231.450 232.010 232.570 233.130 233.690	8.68014 + 0 8.42490 8.17776 7.93845 7.70669 7.48224 7.26485 7.05427 6.85028 6.65265	6.51064 + 0 6.31920 6.13383 5.75433 5.78050 5.61214 5.44908 5.29114 5.13813 4.98990	8.56663 - 3 8.31473 8.07082 7.83464 7.60592 7.38440 7.16985 6.96202 6.76070 6.56566	1.3225 - 2 1.2805 1.2399 1.2007 1.1628 1.1262 1.0908 1.0567 1.0236 9.9173 - 3	1.0796 - 2 1.0453 1.0121 9.8014 - 5 9.4922 9.1934 8.9048 8.6258 8.3563 8.0957
34000 34200 34400 34600 34800 35000 35200 35400 35600 35800	34183 34385 34587 34789 34992 35194 35396 35598 35801 36003	234.250 234.810 235.370 235.930 236.490 237.050 237.610 238.170 238.730 239.290	-38.900 -38.340 -37.780 -37.220 -36.660 -36.100 -35.540 -34.980 -34.420 -33.860	234.250 234.810 235.370 235.930 236.490 237.050 237.610 238.170 238.730 239.290	6.46119 + C 6.27566 6.09589 5.92168 5.75284 5.58920 5.43059 5.27683 5.12777 4.98326	4.84629 + 0 4.70714 4.57230 4.44163 4.31499 4.19225 4.07327 3.95795 3.84614 3.73775	6.37669 - 3 6.19360 6.01618 5.84425 5.67762 5.51611 5.35957 5.20782 5.06071 4.91809	9.6088 - 3 9.3107 9.0225 8.7438 8.4744 8.2139 7.9620 7.7183 7.4827 7.2548	7.8439 - 3 7.6006 7.3653 7.1378 6.9179 6.7052 6.4996 6.3007 6.1083 5.9223
36000 36200 36400 36600 37000 37200 37400 37600 37800	36205 36407 36610 36812 37014 37217 37419 37621 37824 38026	239.850 240.910 240.970 241.530 242.090 242.650 243.210 243.770 244.330 244.890	-33.300 -32.740 -32.180 -31.620 -31.060 -30.500 -29.940 -29.380 -28.820 -28.260	239.850 240.410 240.970 241.530 242.090 242.650 243.210 243.770 244.330 244.890	4.84314 + 0 4.70727 4.57552 4.44775 4.32384 4.20364 4.08706 3.97397 3.86425 3.75780	3.63265 + 0 3.53075 3.43192 3.33609 3.24314 3.15299 3.06555 2.98072 2.89843 2.81858	4.77981 - 3 4.64572 4.51569 4.38959 4.26730 4.14867 4.03361 3.92200 3.81372 3.70866	7.0344 - 3 6.8211 6.6148 6.4152 6.2220 6.0351 5.8542 5.6791 5.5097 5.3457	5.7423 - 3 5.5683 5.3998 5.2369 5.0792 4.9266 4.7789 4.6360 4.4977 4.3638

Alti	tude	Т	emperatur	е		Pressure		Den	sity
Z, m	H, m	T, °K	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	ρ , kg m ⁻³	$\frac{\rho}{\rho_{\rm o}}$
27000 27100 27200 27300 27400 27500 27600 27700 27800 27900	26886 26985 27084 27183 27282 27382 27481 27580 27679 27778	223.536 223.635 223.734 223.833 223.932 224.032 224.131 224.230 224.329 224.428	-49.614 -49.515 -49.416 -49.317 -49.218 -49.118 -49.019 -48.920 -48.921	223.536 223.635 223.734 223.833 223.932 224.032 224.131 224.230 224.329 224.428	1.8797 + 1 1.85170 1.82387 1.79648 1.76950 1.74294 1.71680 1.69106 1.665571 1.64076	1.41009 + 1 1.38889 1.36802 1.34747 1.32723 1.30732 1.28770 1.26840 1.24939 1.23067	1.85539 - 2 1.82749 1.80002 1.77298 1.74636 1.72015 1.69435 1.66894 1.64393	2.9298 - 2 2.8845 2.8399 2.7960 2.7528 2.7103 2.6684 2.6273 2.5867 2.5469	2.3917 - 2 2.3547 2.3183 2.2824 2.2172 2.1125 2.1783 2.11447 2.1116 2.0791
28000 28100 28200 28300 28400 28500 28600 28700 28800 28900	27877 27976 28075 28175 28175 28274 28373 28472 28571 28670 28769	224.527 224.626 224.725 224.825 224.924 225.023 225.122 225.221 225.320 225.419	-48.623 -48.524 -48.425 -48.325 -48.226 -48.127 -48.028 -47.929 -47.830 -47.731	224.527 224.626 224.725 224.924 225.023 225.122 225.221 225.320 225.419	1.61619 + 1 1.59201 1.56819 1.554474 1.52166 1.49893 1.47655 1.45451 1.43282	1.21225 + 1 1.19410 1.17624 1.15865 1.14134 1.12429 1.10750 1.09097 1.07470 1.05868	1.59506 - 2 1.57119 1.54769 1.52454 1.50176 1.47933 1.45724 1.43549 1.41408 1.39300	2.5076 - 2 2.4690 2.4310 2.3936 2.3568 2.3206 2.2849 2.22498 2.2153 2.1813	2.0470 - 2 2.0155 1.9845 1.9540 1.9239 1.8943 1.8652 1.8366 1.8084 1.7806
29000 29100 29200 29300 29400 29500 29600 29700 29800 29900	28868 28967 29066 29166 29265 29364 29463 29562 29661 29760	225.518 225.617 225.716 225.816 225.915 226.014 226.113 226.212 226.311 226.410	-47.632 -47.533 -47.434 -47.335 -47.136 -47.037 -46.938 -46.839 -46.740	225.518 225.617 225.716 225.816 225.915 226.014 226.113 226.212 226.311 226.410	1.39042 + 1 1.36971 1.34931 1.32923 1.30946 1.28999 1.27082 1.25194 1.23336 1.21505	1.04290 + 1 1.02737 1.01207 9.97007 + 0 9.82176 9.67573 9.53194 9.39035 9.25093 9.11364	1.37224 - 2 1.35180 1.33167 1.31185 1.29234 1.27312 1.25420 1.23557 1.21723	2.1478 - 2 2.1149 2.0825 2.0526 2.0192 1.9883 1.9579 1.9280 1.8985 1.8696	1.7533 - 2 1.7265 1.7000 1.6740 1.6484 1.6231 1.5983 1.5739 1.5498 1.5262
30000 30100 30200 30300 30400 30500 30600 30700 30800 30900	29859 29958 30057 30156 30255 30354 30453 30552 30651 30751	226-509 226-608 226-707 226-806 226-905 227-004 227-103 227-202 227-301 227-400	-46.641 -46.542 -46.443 -46.245 -46.146 -46.047 -45.948 -45.849 -45.749	226.509 226.608 226.707 226.806 226.905 227.004 227.103 227.202 227.301 227.400	1.19703 + 1 1.17928 1.16180 1.14459 1.12765 1.11096 1.09453 1.07834 1.06241 1.04671	8.97846 + 0 8.84534 8.71425 8.58517 8.45805 8.33288 8.20962 8.08824 7.96871 7.85099	1.18138 - 2 1.16386 1.14661 1.12963 1.11290 1.09043 1.08021 1.06424 1.04851	1.8410 - 2 1.8129 1.7853 1.7581 1.7313 1.7049 1.6790 1.6534 1.6283 1.6035	1.5029 - 2 1.4799 1.4574 1.4352 1.4133 1.3918 1.3706 1.3497 1.3292 1.3090
31000 31100 31200 31300 31400 31500 31600 31700 31800 31900	30850 30949 31048 31147 31246 31345 31444 31543 31642 31741	227.500 227.599 227.698 227.797 227.896 227.995 228.094 228.193 228.292 228.391	-45.650 -45.551 -45.452 -45.353 -45.254 -45.155 -45.056 -44.957 -44.858 -44.759	227.500 227.599 227.698 227.797 227.896 227.995 228.094 228.193 228.292 228.391	1.03126 + 1 1.01604 1.00105 9.86292 + 0 9.71757 9.57442 9.43345 9.29462 9.15789 9.02323	7.73508 + 0 7.62092 7.50851 7.39780 7.28878 7.18141 7.07567 6.97154 6.86899 6.76798	1.01777 - 2 1.00275 9.87962 - 3 9.73395 9.59049 9.44922 9.31009 9.17307 9.03814 8.90524	1.5792 - 2 1.5552 1.5316 1.5083 1.4855 1.4629 1.4408 1.4190 1.3975	1.2891 - 2 1.2695 1.2503 1.2313 1.2126 1.1942 1.1761 1.1583 1.1408 1.1235
32000 32200 32400 32600 32800 33000 33200 33400 33600 33800	31840 32038 32236 32434 32632 32830 33027 33225 33423 33621	228.490 228.756 229.310 229.864 230.418 230.973 231.527 232.081 232.635 233.189	-44.660 -44.394 -43.840 -43.286 -42.732 -42.177 -41.623 -41.069 -40.515 -39.961	228.490 228.756 229.310 229.864 230.418 230.973 231.527 232.681 232.635 233.189	8.89063 + 0 8.63140 8.38023 8.13696 7.90133 7.67308 7.45196 7.23773 7.03016 6.82902	6.66852 + 0 6.47408 6.28569 6.10322 5.92649 5.75528 5.58943 5.42874 5.27305 5.12219	8.77437 - 3 8.51853 8.27065 8.03056 7.79801 7.57274 7.35451 7.14308 6.93822 6.73972	1.3555 - 2 1.3145 1.2731 1.2332 1.1946 1.1573 1.1213 1.0864 1.0528	1.1065 - 2 1.0730 1.0393 1.0067 9.7518 - 3 9.4474 9.1532 8.8688 8.5939 8.3282
34000 34200 34400 34600 35000 35200 35400 35600 35800	33819 34017 34215 34413 34610 34808 35006 35204 35402 35599	233.743 234.297 234.851 235.405 235.959 236.513 237.067 237.621 238.175 238.729	-39.407 -38.853 -38.299 -37.745 -37.191 -36.637 -36.083 -35.529 -34.975 -34.421	233.743 234.297 234.851 235.405 235.959 236.513 237.067 237.621 238.175 238.729	6.63412 + 0 6.44522 6.26215 6.08470 5.91269 5.74593 5.58427 5.42752 5.27553 5.12815	4.97600 + 0 4.83431 4.69700 4.56390 4.3488 4.30980 4.18854 4.07097 3.95697 3.84643	6.54736 - 3 6.36094 6.18026 6.00513 5.83537 5.67079 5.51124 5.35655 5.20655 5.06109	9.8874 - 3 9.5832 9.2890 9.0045 8.7294 8.4634 8.2060 7.9571 7.7163 7.4833	8.0713 - 3 7.8230 7.5828 7.3506 7.1261 6.9089 6.6988 6.4956 6.2990 6.1088
36000 36200 36400 36600 37000 37200 37400 37600 37800	35797 35995 36193 36390 36588 36786 36984 37181 37379 37577	239.282 239.836 240.390 240.943 241.497 242.050 242.604 243.157 243.711 244.264	-33.868 -33.314 -32.760 -32.207 -31.653 -31.100 -30.546 -29.993 -29.439 -28.886	239.282 239.836 240.390 240.943 241.497 242.050 242.604 243.157 243.711 244.264	4.98522 + 0 4.84660 4.71214 4.58172 4.45521 4.33248 4.21340 4.09786 3.98575 3.87696	3.73922 + 0 3.63525 3.53440 3.43658 3.34168 3.24962 3.10031 3.07365 2.98956 2.90796	4.92003 - 3 4.78322 4.65052 4.65052 4.52181 4.39695 4.27582 4.15830 4.04427 3.93363 3.82626	7.2579 - 3 7.0398 6.8287 6.6245 6.4268 6.2355 6.0502 5.8709 5.6974 5.5293	5.9248 - 3 5.7468 5.5745 5.4077 5.2464 5.0902 4.9390 4.7926 4.6509 4.5137

Alti	tude	Т	emperatur	e		Pressure		Den	sity
H, m	Z, m	T,°K	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P°	ρ , kg m ⁻³	$\frac{\rho}{\rho_{\rm o}}$
38000 38200 38400 38600 38600 39000 39200 39400 39600 39800	38229 38431 38633 38636 39038 39241 39443 39646 39646 39648	245.450 246.570 247.130 247.690 248.810 249.370 249.370 249.370	-27.700 -27.140 -26.580 -26.020 -25.460 -24.340 -23.780 -23.200 -22.660	245.450 246.010 246.570 247.130 247.690 248.250 248.810 249.370 249.330 250.490	3.65452 + 0 3.55431 3.45706 3.36268 3.27109 3.18218 3.09589 3.01212 2.93080 2.85185	2.74112 + 0 2.66595 2.59301 2.52222 2.45352 2.38683 2.32211 2.25928 2.19828 2.19828 2.13906	3.60674 - 3 3.50783 3.41185 3.31871 3.22831 3.14057 3.05541 2.97273 2.89248 2.81456	5.1869 - 3 5.0332 4.8843 4.7402 4.6007 4.4655 4.3347 4.2079 4.0851 3.9662	4.2342 - 3 4.1087 3.9872 3.8696 3.7557 3.6453 3.5385 3.4350 3.3348 3.2377
40000 40200 40400 40600 41000 41200 41400 41600 41800	40253 40456 40658 40861 41064 41266 41469 41671 41874 42077	251.050 251.610 252.170 252.730 253.290 253.850 254.410 254.970 255.530 256.090	-22.100 -21.540 -20.980 -20.420 -19.860 -19.300 -18.740 -18.180 -17.620 -17.060	251.050 251.610 252.170 252.730 253.290 253.850 254.410 254.970 255.530 256.090	2.77520 + 0 2.70077 2.62849 2.55830 2.49014 2.42394 2.35964 2.29717 2.23650 2.17755	2.08157 + 0 2.02574 1.97153 1.91889 1.86776 1.81810 1.76987 1.72302 1.67751 1.63330	2.73891 - 3 2.66545 2.59412 2.52485 2.45758 2.39224 2.32878 2.26713 2.20725 2.14908	3.8510 - 3 3.7394 3.6312 3.5264 3.4249 3.3265 3.2311 3.1387 3.0491 2.9622	3.1437 - 3 3.0525 2.9643 2.8787 2.7958 2.7155 2.6376 2.5622 2.4890 2.4181
\$2000 \$2200 \$2\$00 \$2\$00 \$2600 \$3000 \$3200 \$3400 \$3600 \$3800	42279 42482 42685 42887 43090 43293 43496 43698 43901 44104	256.650 257.210 257.770 258.330 258.890 259.450 260.010 260.570 261.130 261.690	-16.500 -15.940 -15.380 -14.820 -14.260 -13.700 -13.140 -12.580 -12.020 -11.460	256.650 257.210 257.770 258.330 259.450 260.010 260.570 261.130 261.690	2.12028 + 0 2.06464 2.01058 1.95804 1.90698 1.85737 1.80914 1.76227 1.71671	1.59034 + 0 1.54861 1.50806 1.46865 1.43035 1.39314 1.35697 1.32181 1.28764 1.25442	2.09256 - 3 2.03764 1.98428 1.93243 1.88205 1.83308 1.78548 1.73922 1.69426 1.65055	2.8780 - 3 2.7964 2.7172 2.6405 2.5661 2.4939 2.4239 2.3561 2.2902 2.2264	2.3494 - 3 2.2828 2.2181 2.1555 2.0948 2.0359 1.9787 1.9233 1.8696 1.8174
44000 44000 44400 44600 45000 45200 45400 45600 45800	44307 44510 44712 44915 45118 45321 45524 45727 45930 46132	262.250 262.810 263.370 263.930 264.490 265.050 265.610 266.170 266.730 267.290	-10.900 -10.340 -9.780 -9.220 -8.660 -8.100 -7.540 -6.980 -6.420 -5.860	262.250 262.810 263.370 263.930 264.490 265.050 265.610 266.170 266.730 267.290	1.62936 + 0 1.58750 1.54681 1.50723 1.46876 1.43134 1.39495 1.35956 1.32514 1.29166	1.22212 + 0 1.19073 1.16020 1.13052 1.10166 1.07359 1.04630 1.01975 9.93936 - 1 9.68825	1.60806 - 3 1.56674 1.52658 1.48752 1.44955 1.41262 1.37671 1.34178 1.30781 1.27477	2.1644 - 3 2.1043 2.0460 1.9894 1.9345 1.8813 1.8296 1.7794 1.7307	1.7669 - 3 1.7178 1.6702 1.6240 1.5792 1.5357 1.4935 1.4526 1.4128 1.3743
46000 46200 46400 46600 46800 47000 47200 47400 47600 47800	46335 46741 46744 47147 47350 47553 47756 47759 48162	267.850 268.410 268.970 269.530 270.090 270.650 270.655 270.650 270.650	-5.300 -4.740 -4.180 -3.620 -3.060 -2.500 -2.500 -2.500 -2.500	267.850 268.410 268.970 269.530 270.650 270.650 270.650 270.650 270.650	1.25909 + 0 1.22741 1.19660 1.16661 1.13744 1.10905 1.08141 1.05445 1.02816 1.00253	9.44398 - 1 9.20636 8.97520 8.75031 8.53150 8.31859 8.11122 7.90901 7.71184 7.51959	1.24263 - 3 1.21136 1.18095 1.15136 1.12257 1.09455 1.06727 1.04066 1.01472 9.89420 - 4	1.6376 - 3 1.5931 1.5498 1.5078 1.4671 1.4275 1.3919 1.3572 1.3234	1.3368 - 3 1.3005 1.2652 1.2309 1.1976 1.1653 1.1363 1.13079 1.0803
4800 48200 48400 48600 48800 49000 49400 49400 49800	48365 48568 48771 48974 49178 49381 49584 49787 49790 50193	270.650 270.650 270.650 270.650 270.650 270.650 270.650 270.650 270.650 270.650	-2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500	270.650 270.650 270.650 270.650 270.650 270.650 270.650 270.650 270.650 270.650	9.77537 - 1 9.53168 9.29406 9.06237 8.83645 8.61616 8.40137 8.19193 7.98771 7.78858	7.33213 - 1 7.14935 6.97112 6.79733 6.62788 6.46265 6.30154 6.14445 5.99127 5.84192	9.64754 - 4 9.40704 9.17253 8.94386 8.72090 8.50349 8.29150 8.08480 7.88325 7.68673	1.2582 - 3 1.2269 1.1963 1.1665 1.1374 1.1090 1.0814 1.0544 1.0281	1.0271 - 3 1.0015 9.7656 - 4 9.5222 9.2848 9.0533 8.8276 8.6076 8.3930 8.1838
50000 50500 51000 51500 52000 52500 53000 53500 54000 54500	50396 50904 51413 51921 52429 52937 53446 53954 54463 54971	270.650 270.650 270.650 270.650 270.650 269.650 268.650 267.650 266.650 265.650	-2.500 -2.500 -2.500 -2.500 -3.500 -4.500 -5.500 -6.500 -7.500	270.650 270.650 270.650 270.650 270.650 269.650 268.650 267.650 266.650 265.650	7.59442 - 1 7.12992 6.69383 6.28442 5.90005 5.53853 5.19795 4.87716 4.57507 4.29066	5.69628 - 1 5.34788 5.02079 4.71370 4.42540 4.15424 3.89878 3.65817 3.43158 3.21826	7.49511 - 4 7.03668 6.60630 6.20224 5.82289 5.46610 5.12998 4.81338 4.51524 4.23456	9.7752 - 4 9.1773 8.6160 8.0890 7.5943 7.1554 6.7404 6.3480 5.9772 5.6267	7.9797 - 4 7.4917 7.0335 6.6033 6.1994 5.8411 5.5023 5.1820 4.8793
55000 55500 56000 56500 57500 57500 58500 58500 59500	55480 55989 56498 57007 57516 58025 58534 59043 59553 60062	264.650 263.650 262.650 261.650 259.650 258.650 257.650 256.650 255.650	-8.500 -9.500 -10.500 -11.500 -12.500 -13.500 -14.500 -16.500	264.650 263.650 262.650 261.650 260.650 259.650 258.650 257.650 256.650	4.02297 - 1 3.77105 3.53404 3.31110 3.10146 2.90435 2.71909 2.54499 2.38143 2.22780	3.01747 - 1 2.82852 2.65075 2.48353 2.32628 2.17844 2.03948 1.90890 1.78622 1.67099	3.97036 - 4 3.72173 3.48782 3.26780 3.06090 2.86637 2.68353 2.51171 2.35029 2.19867	5.2956 - 4 4.9828 4.6874 4.4085 4.1452 3.8967 3.6623 3.4411 3.2325 3.0358	4.3229 - 4 4.0676 3.8264 3.5988 3.3838 3.1810 2.9896 2.8090 2.6388 2.4782

Alti	tude	Т	emperatur	e		Pressure	-	Den	sity
Z, m	H, m	T,°K	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>Р</u> Р _о	ρ , kg m ⁻³	$\frac{\rho}{\rho_{\rm o}}$
38000 38200 38400 38600 39000 39200 39200 39400 39600	37774 37972 38169 38367 38565 38762 38960 39157 39355 39552	244.818 245.924 245.924 246.478 247.031 247.584 248.137 248.690 249.243 249.797	-28.332 -27.779 -27.226 -26.672 -26.619 -25.566 -25.013 -24.460 -23.907 -23.353	244.818 245.371 245.924 246.478 247.031 247.584 248.137 248.690 249.243 249.797	3-77138 + 0 3-66891 3-56945 3-47291 3-37919 3-28821 3-19988 3-11411 3-03084 2-94997	2.82877 + 0 2.75191 2.67731 2.60489 2.53460 2.46636 2.40011 2.33578 2.27331 2.21266	3.72206 - 3 3.62093 3.52277 3.42749 3.33500 3.24521 3.15803 3.07339 2.99120 2.91139	5.3666 - 3 5.2090 5.0564 4.9086 4.7654 4.6267 4.4924 4.3623 4.2362 4.1140	4.3809 - 3 4.2522 4.1276 4.0070 3.8901 3.7769 3.6673 3.5610 3.4581 3.3584
40000 40200 40400 40600 40800 41200 41200 41400 41600 41800	39750 39947 40145 40342 40540 40737 40935 41132 41329 41527	250.350 250.903 251.456 252.008 252.561 253.114 253.667 254.220 254.773 255.325	-22.800 -22.247 -21.694 -21.142 -20.589 -20.036 -19.483 -18.930 -18.377 -17.825	250.350 250.903 251.456 252.008 252.561 253.114 253.667 254.220 254.773 255.325	2.87143 + 0 2.79516 2.72108 2.64913 2.57923 2.51133 2.44536 2.38126 2.31899 2.25847	2.15375 + 0 2.09654 2.04098 1.98701 1.93458 1.88365 1.83417 1.78609 1.73938 1.69399	2.83389 - 3 2.75861 2.68550 2.61448 2.54550 2.47849 2.41338 2.35012 2.28866 2.22894	3.9957 - 3 3.8810 3.7698 3.6621 3.5576 3.4564 3.3583 3.2631 3.1709 3.0815	3.2618 - 3 3.1681 3.0774 2.9894 2.9042 2.8216 2.7415 2.6638 2.5885 2.5155
\$2000 \$2200 \$2400 \$2600 \$2800 \$3200 \$3400 \$3600 \$3600	41724 41922 42119 42316 42514 42711 42908 43106 43303 43500	255.878 256.431 256.983 257.536 258.088 258.641 259.193 259.746 260.298 260.851	-17.272 -16.719 -16.167 -15.614 -15.062 -14.509 -13.957 -13.404 -12.852 -12.299	255.878 256.431 256.983 257.536 258.088 258.641 259.193 259.746 260.298 260.851	2.19967 + 0 2.14252 2.08698 2.03299 1.98052 1.92951 1.87992 1.83172 1.78485 1.73927	1.64989 + 0 1.60702 1.56536 1.52487 1.48551 1.44725 1.41006 1.37390 1.33875 1.30456	2-17090 - 3 2-11450 2-05969 2-00641 1-95462 1-90428 1-85534 1-80776 1-76151	2.99%8 - 3 2.9107 2.8291 2.7500 2.6733 2.5989 2.5267 2.4567 2.3887 2.3228	2.4447 - 3 2.3761 2.3095 2.2449 2.1823 2.1215 2.0626 2.0055 1.9500 1.8962
44000 44400 44400 44800 45000 45200 45400 45600 45800	43697 43895 44092 44289 44486 44684 45078 45275 45472	261.403 261.955 262.508 263.060 263.612 264.164 264.716 265.268 265.820 266.373	-11.747 -11.195 -10.642 -10.090 -9.538 -8.986 -8.434 -7.882 -7.330	261.403 261.955 262.508 263.060 263.612 264.164 264.716 265.268 265.820 266.373	1.69496 + 0 1.65187 1.60996 1.56921 1.52957 1.49101 1.45351 1.41702 1.38153 1.34700	1.27133 + 0 1.23900 1.20757 1.17700 1.14727 1.11835 1.09022 1.06286 1.03623 1.01033	1.67280 - 3 1.63027 1.58891 1.54869 1.50957 1.47151 1.43450 1.39849 1.36347	2.2589 - 3 2.1968 2.1365 2.0781 2.0214 1.9663 1.9128 1.8609 1.8106 1.7616	1.8440 - 3 1.7933 1.7441 1.6964 1.6501 1.6051 1.5615 1.5191 1.4780
#6000 #6200 #6400 #6600 #7000 #7200 #7400 #7600	45669 45867 46064 46261 46458 46655 46852 47049 47246 47443	266.925 267.476 268.028 268.580 269.684 270.236 270.650 270.650	-6.225 -5.674 -5.122 -4.570 -4.018 -3.466 -2.914 -2.500 -2.500	266.925 267.476 268.028 268.580 269.132 269.684 270.236 270.650 270.650	1.31340 + 0 1.28072 1.24891 1.21795 1.18783 1.15851 1.12998 1.10220 1.07512 1.04871	9.85135 - 1 9.60615 9.36756 9.13539 8.90944 8.68954 8.47551 8.26717 8.06409 7.86600	1.29623 - 3 1.26397 1.23257 1.20202 1.17229 1.14336 1.11520 1.08779 1.06106 1.03500	1.7141 - 3 1.6680 1.6233 1.5798 1.5375 1.4965 1.4567 1.4187 1.3838	1.3993 - 3 1.3617 1.3251 1.2896 1.2551 1.2216 1.1891 1.1581 1.1297
48000 48200 48400 48600 48600 49000 49400 49600 49800	47640 47837 48034 48231 48428 48625 48622 49019 49216 49413	270.650 270.650 270.650 270.650 270.650 270.650 270.650 270.650 270.650 270.650	-2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500	270.650 270.650 270.650 270.650 270.650 270.650 270.650 270.650 270.650	1.02296 + 0 9.97830 - 1 9.73324 9.49422 9.26107 9.03367 8.81186 8.59552 8.38449 8.17867	7.67279 - 1 7.48434 7.30053 7.12125 6.94638 6.77581 6.60944 6.44717 6.28889 6.13450	1.00958 - 3 9.84782 - 4 9.60597 9.37006 9.13997 8.91554 8.69663 8.48311 8.27485 8.07172	1.3167 - 3 1.2844 1.2528 1.2221 1.1920 1.1628 1.1342 1.1064 1.0792	1.0749 - 3 1.0485 1.0227 9.9759 - 4 9.7310 9.4920 9.2590 9.0316 8.8099 8.5936
50000 50500 51000 51500 52000 52500 53500 54000 54500	49610 50102 50594 51086 51578 52570 52562 53053 53545 54037	270.650 270.650 270.650 270.650 270.650 270.550 269.527 268.543 267.560 266.577	-2.500 -2.500 -2.500 -2.500 -2.500 -3.640 -3.623 -4.607 -5.590 -6.573	270.650 270.650 270.650 270.650 270.650 270.510 269.527 268.543 267.560 266.577	7.97790 - 1 7.49734 7.04580 6.62151 6.22283 5.84821 5.49540 5.16275 4.84917 4.55364	5.98392 - 1 5.62347 5.28478 4.96654 4.66751 4.38651 4.12189 3.87238 3.63718 3.41551	7.87358 - 4 7.39930 6.95366 6.53492 6.14146 5.77173 5.42353 5.09524 4.78576 4.49409	1.0269 - 3 9.6502 - 4 9.0690 8.5229 8.0097 7.5314 7.1029 6.6974 6.3137 5.9508	8.3827 - 4 7.8777 7.4033 6.9575 6.5386 6.1481 5.7983 5.4673 5.1541 4.8578
55000 55500 56000 56500 57000 57500 58000 58500 59500	54528 55020 55511 56002 56493 56498 57476 57966 58457 58948	265.594 264.611 263.628 262.646 261.663 260.681 259.699 258.717 257.735 256.754	-7.556 -8.539 -9.522 -10.504 -11.487 -12.469 -13.451 -14.433 -15.415	265.594 264.611 263.628 262.646 261.663 260.681 259.699 258.717 257.735 256.754	4.27516 - 1 4.01282 3.76572 3.53304 3.31397 3.10777 2.91373 2.73116 2.55942 2.39792	3.20664 - 1 3.00986 2.82452 2.65000 2.48568 2.33102 2.18548 2.04854 1.91972 1.79858	4.21926 - 4 3.96034 3.71648 3.488694 3.27064 3.06713 2.87563 2.69544 2.52595 2.36656	5.6075 - 4 5.2830 4.9762 4.6882 4.4121 4.1532 3.9086 3.6776 3.4594 3.2535	4.5776 - 4 4.3126 4.0622 3.8254 3.6017 3.3903 3.1907 3.0021 2.8240 2.6559

TABLE I.—Concluded
GEOPOTENTIAL ALTITUDE, METRIC UNITS

Alti	tude	Т	emperatur	e		Pressure	-	Den	sity
H, m	Z, m	Т,°К	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	ρ , kg m ⁻³	$\frac{\rho}{\rho_{\rm o}}$
60000 60500 61000 61500 62000 63000 63500 64000 64500	60572 61081 61591 62101 62611 63121 63631 64141 64651 65161	254.650 253.650 252.650 250.650 248.650 244.650 244.650 240.650 240.650 240.650	-18.500 -19.500 -20.500 -22.500 -24.500 -26.500 -30.500 -30.500 -34.500	254.650 253.650 252.650 250.650 248.650 244.650 244.650 240.650 240.650	2.08354 - 1 1.94810 1.82099 1.70148 1.58896 1.48305 1.38343 1.28976 1.20174 1.11906	1.56278 - 1 1.46120 1.36585 1.27622 1.19182 1.11238 1.03766 9.67402 - 2 9.01379 8.39367	2.05629 - 4 1.92263 1.79718 1.67923 1.56818 1.46366 1.36534 1.27290 1.18603 1.10443	2.8503 - 4 2.6756 2.5109 2.3648 2.2262 2.0947 1.9699 1.8517 1.7397 1.6335	2.3268 - 4 2.1841 2.0497 1.9305 1.8173 1.7099 1.6091 1.5116 1.4201 1.3335
65000 65000 66000 67000 67500 68000 68500 69500	65672 66182 66693 67203 67714 68225 68735 69246 69757 70268	236.650 234.650 232.650 230.650 228.650 226.650 224.650 222.650 220.650 218.650	-36.500 -38.500 -40.500 -42.500 -44.500 -46.500 -48.500 -50.500 -52.500 -54.500	236.650 234.650 232.650 230.650 228.650 224.650 224.650 222.650 220.650 218.650	1.04145 - 1 9.68630 - 2 9.00342 8.36340 7.76389 7.20265 6.67753 6.18651 5.72765 5.29910	7.81153 - 2 7.26533 6.75312 6.27307 5.82340 5.40243 5.00856 4.64027 4.29609 3.97465	1.02783 - 4 9.55964 - 5 8.88569 8.25404 7.66237 7.10846 6.59021 6.10561 5.65275 5.22981	1.5331 - 4 1.4381 1.3482 1.2632 1.1829 1.1071 1.0355 9.6797 - 5 9.0430 8.4429	1.2515 - 4 1.1739 1.1005 1.0312 9.6563 - 5 9.0373 8.4530 7.9018 7.3820 6.8922
70000 70500 71000 71500 72000 72500 73500 74000 74500	70780 71291 71802 72314 72825 73337 73848 74360 74872 75384	216.650 214.650 212.650 210.650 208.650 206.650 204.650 202.650 200.650 198.650	-56.500 -58.500 -60.500 -62.500 -64.500 -66.500 -70.500 -72.500 -74.500	216.650 214.650 212.650 210.650 208.650 204.650 204.650 202.650 198.650	4.89912 - 2 4.52603 4.17825 3.85428 3.55270 3.27214 3.01133 2.76905 2.54415 2.33552	3.67464 - 2 3.39480 3.13395 2.89095 2.66474 2.45431 2.25869 2.07696 1.90827 1.75179	4.83505 - 5 4.46684 4.12361 3.80388 3.50624 3.22935 2.97196 2.73284 2.51088 2.30498	7.8777 - 5 7.3456 6.8449 6.3741 5.9317 5.5161 5.1261 4.7602 4.4171 4.0958	6.4307 - 5 5.9964 5.5877 5.2034 4.8422 4.5030 4.1846 3.8859 3.6058 3.3435
75000 75500 76000 76500 77000 77500 78500 79000 79500	75896 76408 76920 77432 77944 78457 78969 79482 79994 80507	196.65 194.65 192.65 190.65 188.65 184.65 184.65 182.65 180.65	-76.50 -78.50 -80.50 -82.50 -84.50 -86.50 -90.50 -92.50 -92.50	196.65 194.65 192.65 190.65 188.65 186.65 184.65 182.65 180.65	2.1422 - 2 1.9631 1.7973 1.6441 1.5024 1.3717 1.2511 1.1400 1.0377 9.4407 - 3	1.6067 - 2 1.4724 1.3481 1.2331 1.1269 1.0289 9.3843 - 3 8.5508 7.7834 7.0811	2.1141 - 5 1.9374 1.7738 1.6226 1.4828 1.3538 1.2348 1.1251 1.0241 9.3173 - 6	3.795 - 5 3.513 3.250 3.004 2.774 2.560 2.360 2.174 2.001 1.821	3.098 - 5 2.868 2.653 2.452 2.265 2.090 1.927 1.775 1.634 1.486
80000 80500 81000 81500 82500 82500 83500 84600	81020 81533 82046 82559 83072 83585 84098 84612 85125 85639	180.65 180.65 180.65 180.65 180.65 180.65 180.65 180.65	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	180.65 180.65 180.65 180.65 180.65 180.65 180.65 180.65	8.5890 - 3 7.8140 7.1090 6.4676 5.8841 5.3532 4.8702 4.4308 4.0310 3.6674	6.4422 - 3 5.8610 5.3322 4.8511 4.4134 4.0152 3.6530 3.3234 3.0235 2.7507	8.4766 - 6 7.7118 7.0161 6.3830 5.8071 5.2832 4.8065 4.3729 3.9783 3.6194	1.656 - 5 1.507 1.371 1.247 1.135 1.032 9.392 - 6 8.544 7.774 7.072	1.352 - 5 1.230 1.119 1.018 9.263 - 6 8.427 7.667 6.975 6.346 5.773
85000 85500 86000 86500 87000 87500 88500 89500	86152 86666 87180 87693 88207 88721 89236 89750 90264 90778	180.65 180.65 180.65 180.65 180.65 180.65 180.65 180.65 181.44 182.97	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -91.71 -90.18	180.65 180.65 180.65 180.65 180.65 180.65 180.65 180.65 181.44	3.3365 - 3 3.0354 2.7616 2.5124 2.2857 2.0795 1.8919 1.7212 1.5661 1.4259	2.5026 - 3 2.2768 2.0714 1.8845 1.7144 1.5598 1.4190 1.2910 1.1746 1.0695	3.2928 - 6 2.9957 2.7255 2.4796 2.2558 2.0523 1.8671 1.6987 1.5456 1.4073	6.434 - 6 5.854 5.325 4.845 4.408 4.010 3.648 3.319 3.007 2.715	5.252 - 6 4.778 4.347 3.595 3.598 3.274 2.978 2.710 2.455 2.216
90000	91293	184.51	-88.64	184.53	1.2994 - 3	9.7459 - 4	1.2824 - 6	2.453 - 6	2.002 - 6

Altii	tude	T	emperatur	е		Pressure		Den	sity
z, m	H, m	т,°К	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	ρ, kg m ⁻³	$\frac{\rho}{\rho_{o}}$
60000 60500 61000 61500 62000 62500 63500 64500	59439 59930 60420 60911 61401 61891 62382 62872 63362 63852	255-772 254-791 253-810 252-829 251-046 249-084 247-123 245-163 243-202 241-242	-17.378 -18.359 -19.340 -20.321 -22.104 -24.066 -26.027 -27.987 -29.948 -31.908	255.772 254.791 253.810 252.829 251.046 249.084 247.123 245.163 243.202 241.242	2.24606 - 1 2.10332 1.96917 1.84312 1.72457 1.61283 1.50754 1.40838 1.31504 1.22722	1.68469 - 1 1.57762 1.47700 1.38246 1.29353 1.20972 1.13075 1.05637 9.86364 - 2 9.20492	2.21669 - 4 2.07582 1.94342 1.81902 1.70202 1.59174 1.48783 1.38997 1.29785 1.21117	3.0592 - 4 2.8758 2.7028 2.5396 2.3931 2.2557 2.1252 2.0013 1.8837 1.7722	2.4973 - 4 2.3476 2.2064 2.0731 1.9536 1.8414 1.7348 1.6337 1.5377
45000 45500 46000 66500 67600 68500 68500 69500	64342 64832 65322 65811 66301 66791 67280 67770 68259 68748	239.282 237.323 235.363 233.404 231.446 229.487 227.529 225.572 223.614 221.657	-33.868 -35.827 -37.787 -39.746 -41.704 -43.663 -45.621 -47.578 -49.536 -51.493	239.282 237.323 235.363 233.404 231.446 229.487 227.529 225.572 223.614 221.657	1.14463 - 1 1.06700 9.94067 - 2 9.25581 8.61305 8.01011 7.44483 6.91514 6.41909 5.95479	8.58545 - 2 8.00317 7.45612 6.94243 6.46032 6.00807 5.58408 5.18678 4.81471 4.46646	1.12966 - 4 1.05305 9.81068 - 5 9.13478 8.50042 7.90536 7.34747 6.82472 6.33515 5.87692	1.6665 - 4 1.5663 1.4713 1.3815 1.2964 1.2160 1.1399 1.0680 1.0000 9.3589 - 5	1.3604 - 4 1.2786 1.2011 1.1277 1.0583 9.9262 - 5 9.3051 8.7180 8.1635 7.6399
70000 70500 71000 71500 72000 72500 73500 74000 74500	69237 69727 70216 70705 71193 71682 72171 72660 73148 73637	219.700 217.744 215.788 213.832 211.876 209.921 207.966 206.011 204.057 202.103	-53.450 -55.406 -57.362 -59.318 -61.274 -63.229 -65.184 -67.139 -69.093 -71.047	219.700 217.744 215.788 213.832 211.876 209.921 207.966 206.011 204.057 202.103	5.52047 - 2 5.11441 4.73502 4.38075 4.05013 3.74179 3.45441 3.18673 2.93758 2.70581	4.14069 - 2 3.83613 3.55156 3.28583 3.03785 2.80658 2.59102 2.39025 2.20336 2.02953	5.44828 - 5 5.04753 4.67310 4.32346 3.99717 3.69286 3.40924 3.14506 2.89916 2.67043	8.7535 ~ 5 8.1825 7.6442 7.1370 6.6593 6.2096 5.7866 5.3888 5.0151	7.1457 - 5 6.6796 6.2402 5.8261 5.4361 5.0691 4.7237 4.3990 4.0939 3.8074
75000 75500 76000 76500 77600 77500 78500 78500 79500	74125 74614 75102 75590 76078 76566 77054 775542 78030 78518	200.15 198.20 196.24 194.29 192.34 190.38 188.43 186.48 184.53	-73.00 -74.95 -76.91 -78.86 -80.81 -82.77 -84.72 -86.67 -88.62 -90.57	200.15 198.20 196.24 194.29 192.34 190.38 188.43 186.48 184.53	2.4904 - 2 2.2903 2.1045 1.9322 1.7725 1.6246 1.4877 1.3611 1.2442 1.1362	1.8679 - 2 1.7178 1.5785 1.4493 1.3295 1.2186 1.1159 1.0209 9.3322 - 3 8.5223	2.4578 - 5 2.2603 2.0770 1.9069 1.7493 1.6034 1.4683 1.3433 1.2279	4.335 - 5 4.026 3.736 3.465 3.210 2.973 2.750 2.349 2.349 2.168	3.538 - 5 3.286 3.050 2.828 2.621 2.427 2.245 2.076 1.917 1.770
80000 80500 81000 81500 82000 82500 83000 83500 84500	79006 79493 79981 80468 80956 81443 81930 82417 82904 83391	180.65 180.65 180.65 180.65 180.65 180.65 180.65 180.65	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	180.65 180.65 180.65 180.65 180.65 180.65 180.65 180.65	1.0366 - 2 9.4530 - 3 8.6204 7.8612 7.1691 6.5379 5.9624 5.4377 4.9592 4.5228	7.7752 - 3 7.0903 6.4658 5.8964 5.3772 4.9038 4.4722 4.0786 3.7197 3.3924	1.0231 - 5 9.3293 - 6 8.5076 7.7584 7.0753 6.4524 5.8845 5.3666 8.8943 4.4637	1.999 - 5 1.823 1.662 1.516 1.382 1.261 1.150 1.049 9.563 - 6 8.722	1.632 - 5 1.488 1.357 1.238 1.129 1.029 9.386 - 6 8.560 7.807 7.120
85000 85500 86500 87500 87500 88500 88500 89500	83878 84365 84852 85339 85825 86312 86798 87285 87771	180.65 180.65 180.65 180.65 180.65 180.65 180.65 180.65	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	180.65 180.65 180.65 180.65 180.65 180.65 180.65 180.65	4.1250 - 3 3.7621 3.4313 3.1295 2.8544 2.6035 2.3746 2.1660 1.9756 1.8021	3.0940 - 3 2.8218 2.5737 2.3474 2.1410 1.9528 1.7811 1.6246 1.4819 1.3517	4.0710 - 6 3.7129 3.3864 3.0886 2.8171 2.5694 2.3436 2.1376 1.9498 1.7785	7.955 - 6 7.255 6.617 6.035 5.504 5.021 4.579 4.177 3.810 3.475	6.494 - 6 5.922 5.402 4.927 4.493 4.098 3.738 3.410 3.110 2.837
90000	88743	180.65	-92.50	180.65	1.6438 - 3	1.2329 - 3	1.6223 - 6	3.170 - 6	2.588 - 6

Alti	tude	7	Temperatur	·e		Pressure		Den	sity
Z, m	H, m	т,°к	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P.	ρ , kg m ⁻³	$\frac{\rho}{\rho_{\rm o}}$
90000 90500 91500 91500 92000 92500 93500 94500 94500	88743 89229 89715 90201 90687 91173 91659 92144 92630 93116	180.65 182.14 183.63 185.13 186.62 188.10 189.59 191.08 192.56 194.04	-92.50 -91.01 -89.52 -88.02 -86.53 -85.05 -83.56 -82.07 -80.59 -79.11	180.65 182.15 183.65 185.15 186.65 188.15 189.65 191.15 192.65	1.6438 - 3 1.5000 1.3698 1.2519 1.1449 1.0479 9.5977 - 4 8.7968 8.0683 7.4052	1.2329 - 3 1.1251 1.0274 9.3898 - 4 8.5877 7.8599 7.1989 6.5981 6.0517 5.5544	1.6223 - 6 1.4804 1.3519 1.2355 1.1300 1.0342 9.4722 - 7 8.6818 7.9628 7.3084	3.170 - 6 2.869 2.598 2.355 2.137 1.940 1.763 1.603 1.459 1.329	2.588 - 6 2.342 2.121 1.923 1.744 1.584 1.439 1.309 1.191 1.085
95000 95500 96000 96500 97500 97500 98500 98000 99000 99500	93601 94086 94572 95057 95542 96027 96512 96997 97482 97966	195.51 196.98 198.45 199.92 201.37 202.83 204.28 205.72 207.16 208.60	-77.64 -76.17 -74.70 -73.23 -71.78 -70.32 -68.87 -67.43 -65.99 -64.55	195.65 197.15 198.65 200.15 201.65 203.15 204.65 206.15 207.65 209.15	6.8012 - 4 6.2506 5.7483 5.2897 4.8709 4.4880 4.1377 3.8171 3.5235 3.2543	5.1013 - 4 4.6883 4.3116 3.9676 3.6535 3.3663 3.1036 2.8631 2.6428 2.4409	6.7122 - 7 6.1688 5.6731 5.2206 4.8072 4.4293 4.0836 3.7672 3.4774 3.2117	1.211 - 6 1.104 1.008 9.207 - 7 8.415 7.696 7.044 6.450 5.911 5.420	9.886 - 7 9.016 8.229 7.516 6.869 6.283 5.750 5.266 4.825 4.425
100000 101000 102000 103000 104000 105000 106000 107000 108000 109000	98451 99420 100389 101357 102326 103294 104261 105228 106195 107162	210.02 214.86 219.66 224.43 229.18 233.90 238.58 243.23 247.85 252.44	-63.13 -58.29 -53.49 -48.72 -43.97 -39.25 -34.57 -29.92 -25.30 -20.71	210.65 215.65 220.65 225.65 230.65 235.65 240.65 245.65 250.65	3.0075 - 4 2.5748 2.2123 1.9074 1.6500 1.4318 1.2462 1.0879 9.5225 - 5 8.3578	2.2558 - 4 1.9312 1.6594 1.4307 1.2376 1.0739 9.3475 - 5 8.1596 7.1425 6.2689	2.9681 - 7 2.5411 2.1834 1.8825 1.6284 1.4131 1.2299 1.0736 9.3980 - 8	4.974 - 7 4.159 3.493 2.945 2.492 2.117 1.804 1.5543 1.323 1.139	4.060 - 7 3.395 2.851 2.404 2.034 1.728 1.473 1.259 1.080 9.297 - 8
110000 111000 112000 113000 114000 115000 117000 118000 119000	108129 109095 110060 111026 111991 112956 113921 114885 115849 116813	257.00 266.44 275.85 285.20 294.52 303.78 313.01 322.19 331.33 340.43	-16.15 -6.71 2.70 12.05 21.37 30.63 39.86 49.04 58.18 67.28	260.65 270.65 280.65 290.65 300.65 310.65 320.65 340.65 350.65	7.3544 - 5 6.4951 5.7623 5.1338 4.5919 4.1224 3.7137 3.3563 3.0426 2.7662	5.5163 - 5 4.8717 4.3220 3.8507 3.4442 3.0921 2.7855 2.5175 2.2822 2.0748	7.2582 - 8 6.4101 5.6869 5.0666 4.5319 4.0685 3.6651 3.3125 3.0029 2.7300	9.829 - 8 8.360 7.153 6.153 5.321 4.623 4.035 3.536 3.112 2.748	8.024 - 8 6.825 5.839 5.023 4.343 3.774 3.294 2.887 2.540 2.243
120000 121000 122000 123000 124000 125000 126000 127000 128000 129000	117776 118739 119702 120665 121627 122589 123551 124512 125473 126434	349.49 368.19 386.83 405.40 423.90 442.35 460.73 479.07 497.36 515.60	76.34 95.04 113.68 132.25 150.75 169.20 187.58 205.92 224.21 242.45	360.65 380.65 400.65 420.65 440.65 460.65 500.65 520.65 540.65	2.5217 - 5 2.3074 2.1210 1.9578 1.8139 1.6863 1.5726 1.4707 1.3791 1.2964	1.8914 - 5 1.7307 1.5909 1.4684 1.3605 1.2648 1.1795 1.1031 1.0344 9.7239 - 6	2.4887 - 8 2.2772 2.0933 1.9322 1.7901 1.6642 1.5520 1.4515 1.3611 1.2795	2.436 - 8 2.112 1.844 1.621 1.434 1.275 1.140 1.023 9.228 - 9 8.353	1.988 - 8 1.724 1.506 1.324 1.171 1.041 9.304 - 9 8.354 7.533 6.819
130000 131000 132000 133000 134000 135000 136000 137000 138000	127394 128354 129314 130274 131233 132192 133151 134109 135067 136025	533.80 551.97 570.09 588.19 606.26 624.30 642.32 660.32 678.31 696.27	260.65 278.82 296.94 315.04 333.11 351.15 369.17 387.17 405.16 423.12	560.65 580.65 600.65 640.65 640.65 660.65 700.65 720.65 740.65	1.2214 - 5 1.1532 1.0909 1.0339 9.8151 - 6 9.3330 8.8882 8.4766 8.0950 7.7405	9.1613 - 6 8.6495 8.1823 7.7546 7.3619 7.0004 6.6667 6.3580 6.0718 5.8058	1.2054 - 8 1.1381 1.0766 1.0203 9.6867 - 9 9.2110 8.7719 8.3658 7.9892 7.6393	7.589 - 9 6.919 6.327 5.803 5.337 4.921 4.549 4.215 3.913 3.641	6.195 - 9 5.648 5.165 4.737 4.357 4.017 3.714 3.441 3.194 2.972
140000 141000 142000 143000 144000 145000 146000 147000 148000	136983 137940 138897 139853 140810 141766 142721 143677 144632 145587	714.22 732.16 750.08 767.98 785.87 803.74 821.60 839.43 857.24 875.03	441.07 459.01 476.93 494.83 512.72 530.59 548.45 566.28 584.09 601.88	760.65 780.65 800.65 820.65 840.65 860.65 900.65 920.65 940.65	7.4104 - 6 7.1025 6.8148 6.5455 6.2931 6.0560 5.8331 5.6232 5.4252 5.2384	5.5582 - 6 5.3273 5.1115 4.7005 4.7202 4.5424 4.3752 4.2177 4.0093 3.9291	7.3135 - 9 7.0096 6.7257 6.4599 6.2108 5.9768 5.7568 5.5496 5.3543 5.1699	3.394 - 9 3.170 2.965 2.779 2.608 2.451 2.307 2.175 2.053 1.940	2.770 - 9 2.587 2.421 2.268 2.129 2.001 1.884 1.776 1.676
150000 151000 152000 153000 154000 155000 156000 157000 158000 159000	146541 147496 148450 149403 150357 151310 152263 153215 154167 155119	892.79 905.88 918.94 931.97 944.98 957.94 970.88 983.78 996.64 1009.45	619.64 632.73 645.79 658.82 671.83 684.79 697.73 710.63 723.49 736.30	960.65 975.65 990.65 1005.65 1020.65 1035.65 1050.65 1065.65 1080.65	5.0617 - 6 4.8941 4.7345 4.5825 4.4375 4.2992 4.1671 4.0409 3.9202 3.8048	3.7966 - 6 3.6709 3.5512 3.4371 3.3284 3.2246 3.1256 3.0309 2.9404 2.8538	4.9955 - 9 4.8301 4.6726 4.5225 4.5225 4.2429 4.1126 3.9880 3.8690 3.7550	1.836 - 9 1.747 1.665 1.587 1.515 1.446 1.382 1.321 1.264 1.210	1.498 - 9 1.427 1.359 1.296 1.236 1.181 1.128 1.078 1.032 9.876 -10

Altit	tude	7	emperatur	e		Pressure		Den	sity
Z, m	H, m	T,°K	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P°	$ ho$, kg m $^{-3}$	$\frac{\rho}{\rho_{\rm o}}$
160000 161000 162000 163000 164000 165000 166000 168000 169000	156071 157022 157973 158924 159874 160825 161775 162724 163673 164622	1022.23 1030.37 1038.49 1046.59 1054.67 1062.74 1070.81 1078.90 1087.01 1095.17	749.08 757.22 765.34 773.44 781.52 789.59 797.66 805.75 813.86 822.02	1110.65 1120.65 1130.65 1140.65 1150.65 1160.65 1170.65 1180.65 1190.65	3.6943 - 6 3.5882 3.4861 3.3878 3.2932 3.2019 3.1140 3.0293 2.9475 2.8687	2.7709 - 6 2.6914 2.6148 2.5411 2.4701 2.4017 2.3357 2.2721 2.2108 2.1517	3.6460 - 9 3.5413 3.4405 3.3435 3.2501 3.1601 3.0733 2.9897 2.9090 2.8312	1.159 - 9 1.115 1.074 1.035 9.970 -10 9.611 9.267 8.938 8.624 8.323	9.459 -10 9.106 8.768 8.446 8.139 7.845 7.565 7.297 7.040 6.795
170000 171000 172000 173000 174000 175000 176000 177000 178000	165571 166520 167468 168416 169363 170310 171257 172204 173150 174097	1105.51 1110.62 1115.73 1120.82 1125.90 1130.97 1136.02 1141.07 1146.10 1151.12	832.36 837.47 842.58 847.67 852.75 857.82 862.87 867.92 877.97	1210.65 1217.65 1224.65 1231.65 1238.65 1245.65 1252.65 1259.65 1266.65	2.7926 - 6 2.7191 2.6479 2.5790 2.5123 2.4477 2.3851 2.3245 2.2657 2.2088	2.0946 - 6 2.0395 1.9861 1.9344 1.8844 1.8359 1.7890 1.7435 1.6994 1.6567	2.7561 - 9 2.6835 2.6133 2.5453 2.5453 2.4157 2.4157 2.3539 2.2941 2.2361 2.1799	8.036 -10 7.779 7.532 7.295 7.295 7.066 6.845 6.633 6.429 6.231 6.041	6.560 -10 6.350 6.149 5.955 5.768 5.588 5.415 5.248 5.087 4.932
180000 181000 182000 183000 184000 185000 186000 187000 188000	175042 175988 176933 177878 178823 179767 180711 181655 182598 183542	1156.12 1161.12 1166.10 1171.07 1176.03 1180.97 1185.90 1190.82 1195.73 1200.62	882.97 887.97 892.95 897.92 902.88 907.82 912.75 917.67 922.58 927.47	1280.65 1287.65 1294.65 1301.65 1301.65 1315.65 13122.65 1322.65 1329.65 1336.65	2.1536 - 6 2.1001 2.0482 1.9979 1.9491 1.9018 1.8559 1.8113 1.7680 1.7260	1.6153 - 6 1.5752 1.5363 1.4986 1.4620 1.4265 1.3920 1.3586 1.3261 1.2946	2.1254 - 9 2.0726 2.0214 1.9718 1.9236 1.8769 1.8316 1.7876 1.7449	5.858 -10 5.682 5.511 5.347 5.189 5.036 4.888 4.746 4.608 4.475	4.782 -10 4.638 4.499 4.365 4.236 4.111 3.990 3.874 3.762 3.653
190000 191000 192000 193000 194000 195000 196000 197000 198000	184485 185427 186370 187312 188253 189195 190136 191077 192018 192958	1205.50 1208.59 1211.66 1214.73 1217.79 1220.84 1223.88 1226.91 1229.93 1232.95	932.35 935.44 938.51 941.58 944.64 947.69 950.73 953.76 956.78 959.80	1350.65 1355.65 1360.65 1365.65 1370.65 1375.65 1380.65 1385.65 1390.65	1.6852 - 6 1.6456 1.6070 1.5695 1.5331 1.4976 1.4630 1.4294 1.3967 1.3649	1.2640 - 6 1.2343 1.2054 1.1773 1.1499 1.1233 1.0974 1.0722 1.0476 1.0237	1.6632 - 9 1.6241 1.5860 1.5490 1.5130 1.4780 1.4439 1.4107 1.3785 1.3470	4.347 -10 4.229 4.115 4.004 3.896 3.792 3.692 3.594 3.499 3.407	3.548 -10 3.452 3.359 3.268 3.181 3.096 3.014 2.934 2.856 2.781
200000 201000 202000 203000 204000 205000 206000 207000 208000 209000	193898 194838 195777 196716 197655 198594 199532 200470 201408 202346	1235.95 1238.95 1241.94 1244.91 1247.88 1250.84 1253.79 1256.73 1259.66 1262.58	962-80 965-80 968-79 971-76 974-73 977-69 980-64 983-58 986-51 989-43	1400.65 1405.65 1410.65 1415.65 1425.65 1425.65 1430.65 1445.65	1.3339 - 6 1.3037 1.2743 1.2457 1.2179 1.1907 1.1643 1.1386 1.1135 1.0890	1.0005 - 6 9.7786 - 7 9.5583 9.3437 9.1347 8.9312 8.7330 8.5398 8.3517 8.1684	1.3164 - 9 1.2867 1.2577 1.2294 1.2019 1.1752 1.1491 1.1237 1.0989 1.0748	3.318 -10 3.231 3.147 3.066 2.986 2.910 2.835 2.763 2.693 2.624	2.708 -10 2.638 2.569 2.502 2.438 2.375 2.314 2.255 2.198 2.142
210000 211000 212000 213000 214000 215000 216000 217000 218000	203283 204220 205156 206093 207029 207964 208900 209835 210770 211705	1265.49 1268.40 1271.29 1274.17 1277.05 1279.91 1282.76 1285.61 1288.45 1291.27	992.34 995.25 998.14 1001.02 1003.90 1006.76 1009.61 1012.46 1015.30 1018.12	1450.65 1455.65 1460.65 1465.65 1470.65 1475.65 1480.65 1485.65 1495.65	1.0652 - 6 1.0420 1.0194 9.9735 - 7 9.7586 9.5491 9.3449 9.1457 8.9515 8.7621	7.9898 - 7 7.8157 7.6461 7.4807 7.3196 7.1624 7.0092 6.8599 6.7142 6.5721	1.0513 - 9 1.0284 1.0061 9.8431 -10 9.6310 9.4242 9.2227 9.0261 8.8345 8.6476	2.558 -10 2.494 2.431 2.371 2.372 2.254 2.199 2.145 2.092 2.041	2.088 -10 2.036 1.985 1.985 1.887 1.840 1.795 1.751 1.708
220000 221000 222000 223000 224000 225000 226000 227000 228000 229000	212639 213573 214507 215440 216374 217306 218239 219171 220104 221035	1294.09 1296.89 1299.69 1302.47 1305.25 1308.02 1310.77 1313.52 1316.26 1318.99	1020.94 1023.74 1026.54 1029.32 1032.10 1034.87 1043.762 1040.37 1043.11	1500.65 1505.65 1510.65 1515.65 1525.65 1525.65 1530.65 1533.65 1538.65	8.5774 - 7 8.3973 8.2215 8.0500 7.8827 7.7195 7.5602 7.4048 7.2531 7.1050	6.4336 - 7 6.2985 6.1666 6.0380 5.9125 5.7901 5.6706 5.5540 5.4402 5.3292	8.4653 -10 8.2874 8.1140 7.9448 7.7797 7.6186 7.4614 7.3080 7.1582 7.0121	1.991 -10 1.943 1.896 1.850 1.806 1.763 1.721 1.680 1.640	1.625 -10 1.586 1.548 1.510 1.474 1.439 1.405 1.371 1.339
230000 231000 232000 233000 234000 235000 236000 237000 238000 239000	221967 222898 223829 224760 225690 226620 227550 228479 229409 230338	1321.70 1323.56 1325.41 1327.25 1329.08 1330.90 1332.72 1334.52 1336.32	1048.55 1050.41 1052.26 1054.10 1055.93 1057.75 1059.57 1061.37 1063.17	1550.65 1554.65 1558.65 1562.65 1566.65 1570.65 1574.65 1578.65 1582.65	6.9604 - 7 6.8193 6.6813 6.5466 6.4150 6.2863 6.1606 6.0378 5.9177 5.8004	5.2207 - 7 5.1149 5.0114 4.9104 4.8116 4.7151 4.6208 4.5287 4.4387 4.3507	6.8694 -10 6.7301 6.5940 6.4610 6.3311 6.2041 6.0801 5.9588 5.8403 5.7245	1.564 -10 1.528 1.493 1.459 1.426 1.394 1.363 1.332 1.303	1.277 -10 1.247 1.219 1.191 1.164 1.138 1.088 1.063

TABLE I.—Continued GEOMETRIC ALTITUDE, METRIC UNITS

Alti	tude	-	remperatur	е		Pressure		Den	sity
z, m	H, m	т,°к	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>Р</u> Р,	ρ , kg m ⁻³	$\frac{ ho}{ ho_{o}}$
240000 241000 242000 243000 244000 245000 246000 247000 248000 249000	231266 232195 233123 234051 234978 235905 236832 237759 237759 2378686 239612	1339.90 1341.67 1343.44 1345.20 1346.95 1348.69 1350.42 1352.15 1353.87 1355.58	1066.75 1068.52 1070.29 1072.05 1073.80 1075.54 1077.27 1079.00 1080.72 1082.43	1590.65 1594.65 1594.65 1602.65 1606.65 1610.65 1614.65 1618.65 1626.65	5.6857 - 7 5.5736 5.4640 5.3569 5.2521 5.1497 5.0496 4.9516 4.8559 4.7622	4.2646 - 7 4.1805 4.0983 4.0180 3.9394 3.8626 3.7875 3.7140 3.6422 3.5720	5.6114 -10 5.5007 5.3926 5.2868 5.1834 5.0824 4.9835 4.8869 4.7924 4.6999	1.245 -10 1.218 1.191 1.164 1.139 1.114 1.089 1.043 1.020	1.017 -10 9.940 -11 9.720 9.505 9.296 9.092 8.894 8.700 8.510 8.326
250000 251000 252000 253000 254000 255000 256000 257000 258000 259000	240538 241463 242389 243314 244238 245163 246087 247011 247934 248858	1357.28 1358.97 1360.66 1362.33 1364.00 1365.66 1367.31 1368.96 1370.59 1372.22	1084.13 1085.82 1087.51 1089.18 1090.85 1092.51 1094.16 1095.81 1097.44 1099.07	1630.65 1634.65 1638.65 1642.65 1640.65 1650.65 1654.65 1658.65 1662.65	4.6706 - 7 4.5810 4.4934 4.4077 4.3238 4.2418 4.1615 4.0830 4.0061 3.9309	3.5032 - 7 3.4361 3.3703 3.3060 3.2431 3.1816 3.1214 3.0625 3.0048 2.9484	4.6095 -10 4.5211 4.4346 4.3500 4.2673 4.1863 4.1071 4.0296 3.9537 3.8795	9.978 -11 9.763 9.553 9.348 9.148 8.952 8.762 8.762 8.575 8.394 8.217	8.145 -11 7.970 7.798 7.631 7.467 7.308 7.152 7.000 6.852 6.707
260000 261000 262000 263000 264000 265000 266000 267000 269000	249781 250704 251626 252548 253470 254392 255313 256235 257155 258076	1373.84 1375.45 1377.06 1378.65 1380.24 1381.82 1383.39 1384.95 1384.95	1100-69 1102-30 1103-91 1105-50 1107-09 1108-67 1110-24 1111-80 1113-35 1114-90	1670.65 1674.65 1678.65 1682.65 1686.65 1690.65 1694.65 1698.65 1702.65	3.8573 - 7 3.7853 3.7148 3.6458 3.5783 3.5783 3.5122 3.4475 3.3841 3.3221 3.2614	2.8932 - 7 2.8392 2.7863 2.7346 2.6839 2.6344 2.5858 2.5383 2.4918 2.4462	3.8069 -10 3.7358 3.6662 3.5981 3.5315 3.4663 3.4024 3.3399 3.2787 3.2187	8.043 -11 7.874 7.709 7.548 7.391 7.237 7.087 6.940 6.797 6.657	6.566 -11 6.428 6.293 6.162 6.033 5.908 5.785 5.666 5.549 5.434
270000 271000 272000 273000 274000 275000 276000 277000 278000 279000	258996 259916 260836 261755 262675 263594 264512 265430 266349 267266	1389.59 1391.12 1392.64 1394.16 1395.66 1397.16 1398.65 1400.14 1401.61 1403.08	1116.44 1117.97 1119.49 1121.01 1122.51 1124.01 1125.50 1126.99 1128.46 1129.93	1710.65 1714.65 1718.65 1722.65 1726.65 1730.65 1734.65 1742.65 1746.65	3.2019 - 7 3.1437 3.0867 3.0308 2.9761 2.9226 2.8701 2.8187 2.7684 2.7191	2.4016 - 7 2.3580 2.3152 2.2733 2.2323 2.1921 2.1528 2.1142 2.0765 2.0395	3.1600 -10 3.1026 3.0463 2.9912 2.9372 2.8844 2.8326 2.7819 2.7322 2.6835	6.521 -11 6.387 6.257 6.129 6.005 5.883 5.764 5.648 5.534 5.423	5.323 -11 5.214 5.107 5.003 4.902 4.802 4.705 4.610 4.518 4.427
280000 281000 282000 283000 284000 285000 286000 287000 288000 289000	268184 269101 270018 270935 271851 272767 273683 274599 275514 276429	1404.54 1405.99 1407.43 1408.87 1410.29 1411.71 1413.13 1415.93 1415.93 1417.32	1131.39 1132.84 1134.28 1135.72 1137.14 1138.56 1139.98 1141.38 1142.78	1750.65 1754.65 1758.65 1762.65 1766.65 1770.65 1774.65 1778.65 1782.65	2.6708 - 7 2.6235 2.5771 2.5317 2.4871 2.4435 2.4008 2.3589 2.3178 2.2776	2.0033 - 7 1.9678 1.9330 1.8989 1.8655 1.8328 1.8007 1.7693 1.7385	2.6359 -10 2.5892 2.5434 2.4986 2.4546 2.4116 2.3694 2.3280 2.2875 2.2478	5.315 -11 5.209 5.105 5.004 4.808 4.713 4.620 4.529 4.441	4.339 -11 4.252 4.167 4.085 4.004 3.925 3.847 3.772 3.698 3.625
290000 291000 292000 293000 294000 295000 296000 297000 298000	277344 278258 279172 280086 281000 281913 282826 283739 284652 285564	1418.70 1420.07 1421.44 1422.80 1424.15 1425.50 1426.84 1428.17 1429.49 1430.80	1145.55 1146.92 1148.29 1149.65 1151.00 1152.35 1153.69 1155.02 1156.34 1157.65	1790.65 1794.65 1798.65 1802.65 1806.65 1810.65 1814.65 1818.65 1822.65	2.2381 - 7 2.1994 2.1615 2.1244 2.0880 2.0522 2.0172 1.9829 1.9492 1.9162	1.6787 - 7 1.6497 1.6213 1.5934 1.55661 1.5393 1.5130 1.4873 1.4620 1.4373	2.2088 -10 2.1707 2.1333 2.0966 2.0607 2.0254 1.9908 1.9570 1.9237 1.8912	4.354 -11 4.269 4.187 4.105 4.026 3.949 3.873 3.798 3.726 3.654	3.554 -11 3.485 3.418 3.351 3.287 3.223 3.161 3.101 3.041 2.983
300000 302000 304000 306000 310000 312000 314000 316000 318000	286476 288299 290121 291942 293762 295581 297399 299215 301031 302845	1432.11 1433.61 1435.09 1436.55 1437.98 1439.40 1440.79 1442.16 1443.51 1444.84	1158.96 1160.46 1161.94 1163.40 1164.83 1166.25 1167.64 1169.01 1170.36 1171.69	1830.65 1837.25 1843.85 1850.45 1850.45 1863.65 1870.25 1876.85 1883.45 1890.05	1.8838 - 7 1.8209 1.7604 1.7021 1.6459 1.5919 1.5398 1.4896 1.4413 1.3947	1.4130 - 7 1.3658 1.3204 1.2767 1.2346 1.1940 1.1549 1.1173 1.0811 1.0461	1.8592 -10 1.7971 1.7374 1.6798 1.6244 1.5711 1.5197 1.4701 1.4224 1.3765	3.585 -11 3.453 3.320 3.204 3.088 2.976 2.868 2.765 2.666 2.571	2.926 -11 2.819 2.715 2.616 2.521 2.429 2.341 2.257 2.176 2.099
320000 322000 324000 326000 328000 330000 332000 334000 336000	304659 306471 308282 310092 311901 313709 315516 317322 319127 320930	1446.15 1447.44 1448.71 1449.96 1451.19 1452.41 1453.60 1454.78 1455.95 1457.10	1173.00 1174.29 1175.56 1176.81 1178.04 1179.26 1180.45 1181.63 1182.80 1183.95	1896.65 1903.25 1909.85 1916.45 1923.05 1929.65 1936.25 1942.85 1949.45 1956.05	1.3498 - 7 1.3065 1.2648 1.2246 1.1858 1.1484 1.1123 1.0775 1.0439	1.0124 - 7 9.7998 - 8 9.4869 9.1851 8.8941 8.6135 8.3428 8.0816 7.8296 7.5864	1.3322 -10 1.2894 1.2483 1.2086 1.1703 1.1334 1.0977 1.0634 1.0302 9.9820 -11	2.479 -11 2.391 2.307 2.226 2.148 2.073 2.001 1.932 1.865 1.801	2.024 -11 1.952 1.883 1.817 1.754 1.692 1.634 1.577 1.523

Alti	tude		emperatur	e		Pressure		Den	sity
Z, m	H, m	T,°K	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	ρ , kg m ⁻³	$\frac{\rho}{\rho_{\rm o}}$
340000 342000 344000 348000 350000 352000 354000 356000 358000	322733 324534 326335 328134 329932 331729 333525 335320 337114 338907	1458.23 1459.34 1460.45 1461.53 1462.61 1463.67 1464.72 1465.75 1466.78	1185.08 1186.19 1187.30 1188.38 1189.46 1190.52 1191.57 1192.60 1193.63 1194.64	1962.65 1969.25 1975.85 1982.45 1989.05 1995.65 2002.25 2008.85 2015.45	9.8014 - 8 9.4993 9.2077 8.9261 8.6542 8.3915 8.1379 7.8928 7.6560 7.4272	7.3516 - 8 7.1251 6.9063 6.6951 6.4912 6.2942 6.1039 5.9201 5.7425 5.5709	9.6732 -11 9.3751 9.0873 8.8094 8.5410 8.2818 8.0315 7.7896 7.5559 7.3301	1.740 -11 1.680 1.623 1.569 1.516 1.465 1.416 1.369 1.323 1.280	1.420 -11 1.372 1.325 1.280 1.237 1.196 1.156 1.117 1.080 1.045
360000 362000 364000 366000 370000 372000 374000 376000 378000	340699 342490 344279 346068 347856 349642 351427 353212 354995 356777	1468.79 1469.78 1470.76 1471.74 1472.70 1473.66 1474.61 1475.55 1476.48 1477.41	1195.64 1196.63 1197.61 1198.59 1199.55 1200.51 1201.46 1202.40 1203.33 1204.26	2028.65 2035.25 2041.85 2048.45 2055.05 2061.65 2068.25 2074.85 2081.45 2088.05	7.2061 - 8 6.9924 6.7858 6.5860 6.3929 6.2061 6.0255 5.8508 5.6817 5.5182	5.4050 - 8 5.2447 5.0897 4.9399 4.7951 4.6550 4.5195 4.3884 4.2616 4.1390	7.1119 -11 6.9009 6.6970 6.4999 6.3093 6.1250 5.9467 5.7742 5.6074 5.4460	1.237 -11 1.197 1.158 1.120 1.084 1.049 1.015 9.823 -12 9.509 9.206	1.010 -11 9.770 -12 9.451 9.143 8.847 8.561 8.285 8.019 7.763 7.515
380000 382000 384000 386000 388000 392000 394000 396000	358559 360339 362118 363896 365673 367449 369223 370997 372770 374542	1478.33 1479.25 1480.16 1481.07 1481.98 1482.88 1483.78 1483.68 1485.58 1486.48	1205-18 1206-10 1207-01 1207-92 1208-83 1209-73 1210-63 1211-53 1212-43 1213-33	2094.65 2101.25 2107.85 2114.45 2121.05 2127.65 2134.25 2140.85 2147.45 2154.05	5.3599 - 8 5.2068 5.0586 4.9151 4.7762 4.6417 4.5115 4.3854 4.2633 4.1450	4.0203 - 8 3.9054 3.7942 3.6866 3.5825 3.4816 3.3839 3.2893 3.1977 3.1090	5.2898 -11 5.1387 4.9924 4.8508 4.7138 4.5810 4.4525 4.3281 4.2075 4.0908	8.914 -12 8.632 8.360 8.098 7.845 7.600 7.364 7.136 6.916 6.704	7.277 -12 7.047 6.825 6.611 6.404 6.204 6.011 5.825 5.646 5.472
400000 402000 404000 406000 408000 410000 412000 414000 418000	376312 378082 379850 381618 383384 385150 386914 388677 390440 392201	1487.38 1487.31 1487.26 1487.26 1487.16 1487.12 1487.07 1487.07 1487.05	1214.23 1214.16 1214.11 1214.05 1214.01 1213.97 1213.94 1213.90 1213.90	2160.65 2165.85 2171.05 2176.25 2181.45 2181.65 2191.85 2197.05 2202.25 2207.45	4.0304 - 8 3.9193 3.8116 3.7072 3.6059 3.5077 3.4124 3.3200 3.2304 3.1434	3.0230 - 8 2.9397 2.8589 2.7806 2.7047 2.6310 2.5595 2.4902 2.4230 2.3578	3.9777 -11 3.8680 3.7618 3.6587 3.5588 3.4618 3.3678 3.2766 3.1881 3.1023	6.498 -12 6.304 6.116 5.934 5.758 5.588 5.424 5.264 5.110 4.961	5.305 -12 5.146 4.993 4.844 4.701 4.562 4.427 4.297 4.171
420000 422000 424000 426000 430000 432000 432000 434000 436000 438000	393961 395720 397478 399235 400991 402746 404500 406253 408005 409756	1487.05 1487.06 1487.09 1487.12 1487.17 1487.22 1487.29 1487.37 1487.58	1213.90 1213.91 1213.94 1213.97 1214.02 1214.07 1214.14 1214.22 1214.32	2212.65 2217.85 2223.05 2228.25 2233.45 2233.45 2243.85 2249.05 2259.45	3.0591 - 8 2.9772 2.8977 2.8206 2.7458 2.6731 2.6026 2.5341 2.4677 2.4031	2.2945 - 8 2.2331 2.1735 2.1156 2.0595 2.0050 1.9521 1.9008 1.8509 1.8025	3.0190 -11 2.9382 2.8598 2.7837 2.7099 2.6382 2.5686 2.5010 2.4354 2.3717	4.816 -12 4.676 4.541 4.410 4.283 4.160 4.041 3.925 3.813 3.705	3.932 -12 3.817 3.707 3.600 3.496 3.396 3.299 3.204 3.113 3.025
440000 442000 444000 446000 450000 450000 454000 456000 458000	411506 413255 413252 416749 418495 420240 421983 423726 423726 425467 427208	1487.70 1487.83 1487.98 1488.14 1488.32 1488.52 1488.73 1488.95 1489.19	1214.55 1214.68 1214.83 1214.99 1215.17 1215.37 1215.58 1215.60 1216.04 1216.30	2264.65 2269.85 2275.05 2280.25 2285.45 2295.85 2301.05 2306.25 2311.45	2.3405 - 8 2.2796 2.2205 2.1630 2.1073 2.0531 2.0004 1.9493 1.8996 1.8513	1.7555 - 8 1.7098 1.6655 1.6224 1.5806 1.5399 1.5005 1.4621 1.4248 1.3886	2.3098 -11 2.2498 2.1914 2.1348 2.0797 2.0262 1.9743 1.9238 1.8747 1.8271	3.600 -12 3.499 3.400 5.305 3.212 3.122 3.035 2.951 2.869 2.790	2.939 -12 2.856 2.776 2.698 2.622 2.549 2.478 2.409 2.342 2.278
460000 462000 464000 466000 470000 472000 474000 476000 478000	428948 430686 432424 438160 435896 437364 441096 442828 444558	1489.73 1490.02 1490.33 1490.66 1491.01 1491.38 1491.76 1492.16 1492.58 1493.03	1216-58 1216-87 1217-18 1217-51 1217-86 1218-23 1218-61 1219-01 1219-43 1219-88	2316.65 2321.85 2327.05 2332.25 2337.45 2342.65 2347.85 2353.05 2353.05 2353.45	1.8043 - 8 1.7587 1.7144 1.6713 1.6294 1.5886 1.5490 1.5105 1.4730 1.4366	1.3534 - 8 1.3192 1.2859 1.2536 1.2221 1.1916 1.1619 1.1330 1.1049 1.0775	1.7808 -11 1.7357 1.6920 1.6494 1.6081 1.5679 1.5288 1.4907 1.4538	2.713 -12 2.639 2.566 2.496 2.428 2.362 2.298 2.236 2.176 2.118	2.215 -12 2.154 2.095 2.038 1.982 1.928 1.876 1.826 1.776
480000 482000 484000 486000 490000 490000 492000 494000 498000	446287 448016 449743 451469 453195 454919 456642 458365 460086 461806	1493.49 1493.97 1494.47 1494.99 1495.53 1496.10 1496.68 1497.28 1497.91	1220.34 1220.82 1221.32 1221.84 1222.38 1222.95 1223.53 1224.13 1224.76 1225.41	2368.65 2373.85 2379.05 2384.25 2384.65 2394.65 2399.85 2405.05 2410.25 2415.45	1.4012 - 8 1.3667 1.3332 1.3006 1.2689 1.2380 1.2080 1.1787 1.1503 1.1226	1.0510 - 8 1.0251 9.9999 - 9 9.7553 9.5173 9.2858 9.0605 8.8413 8.6280 8.4203	1.3829 -11 1.3489 1.3158 1.2836 1.2523 1.2218 1.1922 1.1922 1.1633 1.1353 1.1079	2.061 -12 2.006 1.952 1.950 1.850 1.850 1.754 1.707 1.663 1.619	1.682 -12 1.637 1.594 1.551 1.510 1.470 1.431 1.394 1.357

TABLE I.—Continued GEOMETRIC ALTITUDE, METRIC UNITS

Alti	tude	7	Temperatur	e		Pressure		Den	sity
Z, m	H, m	т,°к	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>P</u> P _o	ρ , kg m ⁻³	$\frac{\rho}{\rho_{o}}$
500000 502000 504000 506000 510000 512000 514000 518000	463526 465244 466961 468678 470393 472107 473821 475533 4775244 478954	1499.22 1498.80 1498.40 1498.02 1497.68 1497.35 1497.05 1496.78 1496.53	1226.07 1225.65 1225.25 1224.87 1224.53 1224.20 1223.90 1223.63 1223.38 1223.15	2420.65 2424.05 2427.45 2430.85 2434.25 2437.65 2441.05 2441.85 2447.85 2457.25	1.0957 - 8 1.0694 1.0439 1.0190 9.9474 - 9 9.7111 9.4809 9.2565 9.0379 8.8249	8.2183 - 9 8.0215 7.8298 7.6431 7.4612 7.2839 7.1112 6.9430 6.7790 6.6192	1.0814 -11 1.0555 1.0302 1.0057 9.8173 -12 9.5841 9.3569 9.1355 8.9197 8.7095	1.577 -12 1.537 1.498 1.460 1.424 1.388 1.353 1.319 1.286	1.287 -12 1.255 1.223 1.192 1.162 1.133 1.105 1.077 1.050 1.024
520000 522000 524000 526000 528000 530000 532000 534000 538000	480664 482372 484079 485786 487491 489195 490899 492601 494303 496003	1496.10 1495.93 1495.65 1495.65 1495.55 1495.47 1495.42 1495.38 1495.38	1222.95 1222.78 1222.63 1222.50 1222.40 1222.32 1222.27 1222.24 1222.23 1222.25	2454.65 2458.05 2461.45 2464.85 2468.25 2471.65 2475.05 2478.45 2481.85 2485.25	8.6173 - 9 8.4149 8.2177 8.0255 7.8382 7.6556 7.4776 7.3040 7.1349 6.9699	6.4635 - 9 6.3117 6.1638 6.0197 5.8791 5.7422 5.6086 5.4785 5.3516 5.2279	8.5046 -12 8.3049 8.1103 7.9206 7.7357 7.5555 7.3798 7.2085 7.0416 6.8788	1.223 -12 1.193 1.163 1.134 1.106 1.079 1.052 1.027 1.001 9.770 -13	9.983 -13 9.736 9.494 9.259 9.031 8.808 8.592 8.381 8.175 7.976
540000 542000 544000 546000 548000 550000 550000 554000 556000	497702 499401 501098 502795 504490 506185 507878 509571 511262 512953	1495.51 1495.51 1495.59 1495.84 1495.99 1496.17 1496.36 1496.58	1222.29 1222.36 1222.44 1222.55 1222.69 1222.84 1223.02 1223.21 1223.43 1223.67	2488.65 2492.05 2495.45 2498.85 2502.25 2505.65 2509.05 2512.45 2515.85 2519.25	6.8091 - 9 6.6523 6.4994 6.3502 6.2048 6.0630 5.9247 5.7898 5.6583 5.55300	5.1072 - 9 4.9896 4.8749 4.7631 4.6540 4.5477 4.4439 4.3427 4.2441 4.1478	6.7200 -12 6.5653 6.4144 6.2672 6.1237 5.9838 5.8473 5.7141 5.5843 5.4576	9.532 -13 9.299 9.073 8.853 8.638 8.430 8.226 8.028 7.835 7.647	7.781 -13 7.591 7.407 7.227 7.052 6.881 6.715 6.553 6.396 6.242
560000 562000 564000 566000 570000 572000 572000 574000 576000	514642 516331 518018 519705 521391 523075 524759 526442 528124 529805	1497.09 1497.37 1497.67 1497.99 1498.33 1498.69 1499.07 1499.47 1499.88 1500.32	1223.94 1224.22 1224.52 1224.84 1225.18 1225.54 1225.92 1226.32 1226.73 1227.17	2522.65 2526.05 2529.45 2532.85 2536.25 2539.65 2543.05 2546.45 2549.85 2553.25	5.4048 - 9 5.2827 5.1635 5.0473 4.9339 4.8233 4.7154 4.6100 4.5072 4.4069	4.0539 - 9 3.9623 3.8730 3.7858 3.7008 3.6178 3.5368 3.4578 3.3807 3.3055	5.3341 -12 5.2136 5.0960 4.9813 4.8694 4.7602 4.6537 4.5497 4.4483 4.3493	7.464 -13 7.285 7.111 6.942 6.777 6.616 6.459 6.307 6.158 6.013	6.093 -13 5.947 5.805 5.667 5.532 5.401 5.273 5.1148 5.027 4.908
580000 582000 584000 586000 580000 590000 594000 596000 598000	531484 533163 534841 536518 538194 539869 541543 543216 543216 5436559	1500.77 1501.24 1501.72 1502.22 1502.73 1503.27 1503.81 1504.37 1504.37 1504.53	1227.62 1228.09 1228.57 1229.07 1229.58 1230.12 1230.66 1231.22 1231.79 1232.38	2556.65 2560.05 2563.45 2566.85 2570.25 2573.65 2577.05 2580.45 2583.85 2587.25	4.3091 - 9 4.2135 4.1203 4.0293 3.9405 3.8538 3.7691 3.6865 3.6058 3.5271	3.2321 - 9 3.1604 3.0905 3.0222 2.9556 2.8906 2.8271 2.7651 2.7046 2.6455	4.2527 -12 4.1584 4.0664 3.9766 3.8889 3.8034 3.7198 3.6383 3.5587 3.4810	5.872 -13 5.734 5.599 5.468 5.341 5.216 5.095 4.977 4.862 4.749	4.793 -13 4.681 4.571 4.864 4.360 4.258 4.159 4.063 3.969 3.877
600000 602000 604000 606000 608000 610000 612000 614000 618000	548230 549899 551567 553234 554901 556566 558230 559894 561556 563218	1506.13 1506.04 1505.97 1505.91 1505.87 1505.83 1505.81 1505.79 1505.79	1232.98 1232.89 1232.89 1232.76 1232.72 1232.68 1232.66 1232.64 1232.64	2590.65 2592.85 2595.05 2597.25 2599.45 2601.65 2603.85 2606.05 2608.25 2610.45	3.4502 - 9 3.3751 3.3018 3.3013 3.1601 3.0917 3.0249 2.9597 2.89597 2.8959	2.5879 - 9 2.5316 2.4765 2.4228 2.3703 2.3190 2.2689 2.2199 2.1721 2.1253	3.4051 -12 3.3310 3.2586 3.1879 3.1188 3.0513 2.9854 2.9210 2.8580 2.7965	4.640 -13 4.535 4.4333 4.235 4.140 4.047 3.956 3.868 3.781	3.707 -13 3.702 3.618 3.537 3.457 3.380 3.304 3.230 3.157 3.087
620000 622000 624000 626000 628000 630000 632000 634000 636000 638000	564879 566538 568197 569855 571511 573167 574822 576476 578129 579781	1505.81 1505.83 1505.86 1505.90 1505.95 1506.00 1506.06 1506.12 1506.18 1506.25	1232.66 1232.68 1232.71 1232.75 1232.80 1232.85 1232.91 1232.97 1233.03 1233.10	2612.65 2614.85 2617.05 2619.25 2621.45 2623.65 2625.85 2628.05 2630.25 2630.25	2.7727 - 9 2.7132 2.6550 2.5982 2.5427 2.4884 2.4354 2.3836 2.3329 2.2834	2.0797 - 9 2.0350 1.9914 1.9488 1.9072 1.8665 1.8267 1.7878 1.7498	2.7364 -12 2.6777 2.6203 2.5642 2.5094 2.4559 2.4036 2.3524 2.3024 2.2536	3.697 -13 3.615 3.534 3.456 3.379 3.304 3.231 3.160 3.090 3.022	3.018 -13 2.951 2.885 2.885 2.758 2.697 2.638 2.579 2.522 2.467
64000 642000 644000 646000 650000 652000 654000 656000 658000	581432 583082 584732 586380 588027 589674 591319 592964 594607 596250	1506.33 1506.41 1506.49 1506.57 1506.65 1506.73 1506.82 1506.90 1506.98	1233.18 1233.26 1233.34 1233.42 1233.50 1233.58 1233.67 1233.75 1233.83 1233.91	2634.65 2636.85 2639.05 2641.25 2643.45 2645.65 2647.85 2650.05 2652.25 2654.45	2.2350 - 9 2.1877 2.1415 2.0963 2.0521 2.0090 1.9667 1.9255 1.8851 1.8457	1.6764 - 9 1.6409 1.6063 1.5724 1.5392 1.5068 1.4752 1.4442 1.4139 1.3844	2.2058 -12 2.1591 2.1135 2.0689 2.0253 1.9827 1.9410 1.9003 1.8605 1.8215	2.955 -13 2.890 2.827 2.765 2.704 2.645 2.588 2.531 2.476 2.422	2.412 -13 2.359 2.359 2.257 2.208 2.159 2.112 2.066 2.021 1.977

TABLE I — Concluded
GEOMETRIC ALTITUDE, METRIC UNITS

	Alti	tuđe	T	emperatur	e		Pressure		Den	sity
	Z, m	H, m	T, °K	t,°C	T _M ,°K	P, mb	P, mm Hg	<u>Р</u>	ρ , kg m ⁻³	$\frac{\rho}{\rho_{o}}$
1	660000 662000 664000 666000 668000 670000 672000 674000 676000 678000	597892 599532 601172 602811 604449 606086 607722 609357 610991 612625	1507.14 1507.22 1507.30 1507.37 1507.43 1507.50 1507.55 1507.61 1507.65	1233.99 1234.07 1234.15 1234.22 1234.28 1234.35 1234.40 1234.40 1234.50	2656.65 2658.85 2661.05 2663.25 2665.45 2667.65 2667.65 2672.05 2674.25 2676.45	1.8071 - 9 1.7694 1.7325 1.6964 1.6612 1.6267 1.5930 1.5600 1.5278 1.4962	1.3554 - 9 1.3271 1.2995 1.2724 1.2460 1.2201 1.1948 1.1701 1.1459 1.1223	1.7835 -12 1.7462 1.7098 1.6743 1.6395 1.6054 1.5722 1.5396 1.5078	2.370 -13 2.318 2.268 2.219 2.171 2.124 2.079 2.034 1.990	1.934 -13 1.892 1.851 1.811 1.772 1.734 1.697 1.660 1.625
	680000 682000 684000 686000 690000 692000 694000 696000 698000	614257 615889 617519 619149 620777 622405 624032 625658 627283 628907	1507.73 1507.75 1507.77 1507.79 1507.79 1507.78 1507.77 1507.75	1234.58 1234.60 1234.64 1234.64 1234.64 1234.63 1234.60 1234.50 1234.50	2678.65 2680.85 2683.05 2685.25 2687.45 2687.65 2691.85 2694.05 2696.25 2698.45	1.4654 - 9 1.4352 1.4057 1.3769 1.3487 1.3210 1.2940 1.2676 1.2418 1.2165	1.0991 - 9 1.0765 1.0544 1.0327 1.0116 9.9087 -10 9.7061 9.5079 9.3141 9.1245	1.4462 -12 1.4165 1.3874 1.3589 1.3310 1.3038 1.2771 1.2510 1.2255 1.2006	1.906 -13 1.865 1.825 1.786 1.748 1.711 1.675 1.639 1.604	1.556 -13 1.522 1.490 1.458 1.427 1.397 1.367 1.338 1.310 1.282
	700000	630530	1507.61	1234.46	2700.65	1.1918 - 9	8.9390 -10	1.1762 -12	1.537 -13	

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Table II

ACCELERATION DUE TO GRAVITY, SPECIFIC WEIGHT, PRESSURE SCALE HEIGHT, NUMBER DENSITY, PARTICLE SPEED, COLLISION FREQUENCY, MEAN FREE PATH, AND MOLECULAR WEIGHT

Metric Units

Note: A one- or two-digit number (preceded by a plus or minus sign) following the initial entry of each block indicates the power of ten by which that entry and each succeeding entry of that block should be multiplied. A change of power occurring within a block is indicated by a similar notation.

		 			_	T 1			
Alti	tude	Accel.	Specific	Pressure scale	Number	Particle	Collision	Mean free	Molecular
H, m	Z, m		weight ω, kg m ⁻² sec ⁻²		density n, m ⁻³	speed V, m sec ⁻¹	frequency ν , sec ⁻¹	path L, m	weight M
-5000 -4950 -4950 -4850 -4850 -4750 -4700 -4650 -4650	-4996 -4946 -4896 -4846 -4796 -4746 -4697 -4647 -4597	9.8221 9.8219 9.8218 9.8216 9.8215 9.8213 9.8212 9.8210 9.8208	1.8961 + 1 1.8879 1.8798 1.8716 1.8635 1.8554 1.8474 1.8393 1.8313 1.82233	9371.1 9361.7 9352.4 9343.0 9333.7 9324.3 9315.0 9305.6 9296.3 9286.9	4.0140 +25 3.9967 3.9795 3.9623 3.9452 3.9282 3.9112 3.8942 3.8773 3.8605	484.14 483.89 483.64 483.15 483.15 482.91 482.66 482.41 482.17 481.92	1.1503 +10 1.1447 1.1392 1.1337 1.1283 1.128 1.1174 1.1120 1.1066 1.1012	\$.2089 - 8 \$.2271 \$.2454 \$.2638 \$.2823 \$.3009 \$.3196 \$.338\$ \$.3573 \$.3763	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
- 4500 - 4450 - 4400 - 4350 - 4300 - 4250 - 4200 - 4150 - 4100 - 4050	- 4497 - 4447 - 4397 - 4347 - 4297 - 4247 - 4197 - 4107 - 4097 - 4047	9.8205 9.8204 9.8202 9.8201 9.8199 9.8199 9.8195 9.8195 9.8193	1.8154 + 1 1.8075 1.7996 1.7917 1.7838 1.7760 1.7682 1.7605 1.7527	9277.5 9268.2 9258.8 9249.5 9240.1 9230.8 921.4 9212.1 9202.7 9193.4	3.8437 +25 3.8270 3.8103 3.7937 3.7772 3.7607 3.7442 3.7278 3.7115 3.6952	481.68 481.43 481.18 480.93 480.69 480.84 480.19 479.95 479.70	1-0959 +10 1-0905 1-0852 1-0797 1-0747 1-0694 1-0642 1-0590 1-0538	4.3954 - 8 4.4146 4.4339 4.4533 4.4729 4.6925 4.5122 4.5320 4.5520 4.5720	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-4000 -3950 -3900 -3850 -3800 -3750 -3700 -3650 -3650 -3550	-3997 -3948 -3898 -3848 -3798 -3748 -3648 -3598 -3548	9.8190 9.8188 9.8187 9.8185 9.8184 9.8182 9.8181 9.8179 9.8178 9.8176	1.7373 + 1 1.7296 1.7220 1.7144 1.7068 1.6993 1.6917 1.6842 1.6767 1.6693	9184.0 9174.6 9165.3 9155.9 9146.6 9137.2 9127.8 9118.5 9109.1	3.6790 +25 3.6628 3.6467 3.6306 3.6146 3.5987 3.5828 3.5669 3.5511 3.5354	479.20 478.95 478.71 478.46 478.21 477.96 477.71 477.46 477.22 476.97	1.0435 +10 1.0384 1.0333 1.0282 1.0281 1.0181 1.0131 1.0081 1.0031 9.9811 + 9	4.5922 - 8 4.6125 4.6329 4.6534 4.6740 4.6947 4.7155 4.7365 4.7575 4.7575	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-3500 -3450 -3400 -3350 -3350 -3250 -3200 -3150 -3150 -3050	-3498 -3448 -3398 -3348 -3298 -3248 -3198 -3148 -3098 -3049	9.8175 9.8173 9.8171 9.8170 9.8168 9.8167 9.8165 9.8164 9.8162 9.8161	1.6618 + 1 1.6544 1.6470 1.6397 1.6324 1.6251 1.6178 1.6105 1.6033	9090.4 9081.1 9071.7 9062.3 9053.0 9043.6 9034.2 9024.9 9015.5 9006.2	3.5197 +25 3.5041 3.4885 3.4730 3.4575 3.4421 3.4267 3.4114 3.3961 3.3809	476.72 476.47 476.22 475.97 475.72 475.47 475.22 474.97 474.47	9.9316 + 9 9.8823 9.8332 9.7843 9.7356 9.6871 9.6388 9.5907 9.5427 9.4950	4.8000 - 8 4.8214 5.8430 4.8646 6.8864 4.9083 4.9303 4.9524 4.9747	28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96%
-3000 -2950 -2900 -2850 -2850 -2750 -2700 -2650 -2650 -2550	-2999 -2949 -2899 -2849 -2799 -2749 -2649 -2599 -2549	9.8159 9.8158 9.8156 9.8154 9.8153 9.8151 9.8150 9.8148 9.8147 9.8145	1.5889 + 1 1.5817 1.5746 1.5675 1.5604 1.5534 1.5463 1.5393 1.5323 1.5254	8996.8 8987.4 8978.1 8968.7 8959.3 8950.0 8940.6 8931.3 8921.9 8912.5	3.3658 +25 3.3507 3.3356 3.3206 3.3056 3.2908 3.2759 3.2611 3.2464 3.2317	474.22 473.97 473.72 473.42 473.22 472.97 472.71 472.46 472.21 471.96	9.4474 + 9 9.4001 9.3529 9.3059 9.2591 9.2124 9.1660 9.1198 9.0737 9.0278	5.0196 - 8 5.0422 5.0649 5.0878 5.1108 5.1340 5.1573 5.1807 5.2042 5.2278	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-2500 -2450 -2400 -2350 -2350 -2250 -2200 -2150 -2100 -2050	-2499 -2449 -2399 -2349 -2299 -2249 -2149 -2149 -2099	9.8144 9.8142 9.8141 9.8139 9.8137 9.8136 9.8134 9.8133 9.8131	1.5184 + 1 1.5115 1.5046 1.4978 1.4909 1.4841 1.4773 1.4706 1.4638 1.4571	8903.2 8893.8 8884.4 8875.1 8865.7 8856.3 8847.0 8837.6 8828.2 8818.9	3.2170 +25 3.2024 3.1879 3.1734 3.1590 3.1446 3.1302 3.1159 3.1017 3.0875	471.71 471.46 471.20 470.95 470.70 470.45 470.19 469.69 469.69	8.9821 + 9 8.9366 8.8912 8.8461 8.8011 8.7563 8.7117 8.6673 8.6230 8.5790	5.2516 - 8 5.2756 5.2096 5.3238 5.3482 5.3726 5.3973 5.4220 5.4469 5.4719	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-2000 -1950 -1900 -1850 -1800 -1750 -1700 -1650 -1600 -1550	-1999 -1949 -1899 -1849 -1799 -1750 -1700 -1650 -1600 -1550	9.8128 9.8127 9.8125 9.8124 9.8122 9.8121 9.8117 9.8117 9.8116 9.8114	1.4504 + 1 1.4437 1.4371 1.4305 1.4239 1.4173 1.4107 1.4002 1.3977 1.3012	8809.5 8800.1 8790.7 8781.4 8772.0 8762.6 8753.3 8743.9 8734.5 8725.2	3.0734 +25 3.0593 3.0452 3.0312 3.0173 3.0034 2.97896 2.9758 2.9620 2.9483	469.18 468.93 468.68 468.42 468.17 467.92 467.66 467.41 467.15 466.90	8.5351 + 9 8.4914 8.4478 8.4044 8.3613 8.3182 8.2754 8.2327 8.1903 8.1479	5.4971 - 8 5.5224 5.5479 5.5735 5.5993 5.6252 5.6774 5.7038 5.7303	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-1500 -1450 -1400 -1350 -1350 -1250 -1250 -1150 -1150	-1500 -1450 -1400 -1350 -1300 -1250 -1250 -1100 -1100 -1050	9.8113 9.8111 9.8110 9.8108 9.8107 9.8105 9.8104 9.8102 9.8100 9.8099	1.3647 + 1 1.3783 1.3719 1.3655 1.3591 1.3528 1.3401 1.3339 1.3276	8715.8 8706.4 8697.0 8687.7 8678.3 8668.9 8659.6 8650.2 8640.8 8631.4	2.93%7 +25 2.9211 2.9075 2.8940 2.8806 2.8671 2.8538 2.8405 2.8272 2.8140	466.64 466.39 466.14 465.88 465.63 465.37 465.11 464.86 464.86 464.35	8.1058 + 9 8.0638 8.0220 7.9804 7.9389 7.8977 7.8565 7.8156 7.7748 7.7748	5.7569 - 8 5.7837 5.8107 5.8378 5.8651 5.8925 5.9201 5.9478 5.9758 6.0038	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

Altit	rude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecula weight
Z, m	H, m	gravity g,msec ⁻²	ω, kg m ⁻² sec ⁻²	height H _P , m	n, m ⁻³	⊽, m sec⁻¹	ν , sec ⁻¹	L, m	М
-5000 -4950 -4950 -4850 -4860 -4750 -4700 -4650 -4600 -4550	-5004 -4954 -4904 -4854 -4753 -4603 -4553	9.8221 9.8219 9.8218 9.8216 9.8215 9.8213 9.8212 9.8210 9.8209 9.8207	1.8968 + 1 1.8886 1.8804 1.8722 1.8641 1.8560 1.8479 1.8399 1.8319	9371.8 9362.4 9353.1 9343.7 9343.3 9325.0 9315.6 9306.2 9296.9 9287.5	4.0154 +25 3.9981 3.9808 3.9465 3.9465 3.9294 3.9123 3.8954 3.8784 3.8784	484.15 483.91 483.66 483.42 483.17 482.92 482.68 482.43 482.18	1.1507 +10 1.1452 1.1396 1.1341 1.1286 1.1232 1.1177 1.1123 1.1069 1.1016	4.2075 - 8 4.2257 4.2440 4.2624 4.2810 4.2996 4.3183 4.3371 4.3560 4.3751	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-4500 -4400 -4400 -4350 -4300 -4250 -4200 -4150 -4100 -4050	-4503 -4453 -4403 -4353 -4353 -4253 -4203 -4153 -4103	9.8206 9.8204 9.8202 9.8201 9.8199 9.8198 9.8196 9.8195 9.8193 9.8192	1.8159 + 1 1.8080 1.8000 1.7922 1.7843 1.7765 1.7687 1.7609 1.7531 1.7454	9278.1 9268.8 9259.4 9250.0 9240.7 9231.3 9221.9 9212.6 9203.2 9193.8	3.8448 +25 3.8280 3.8113 3.7747 3.7781 3.77616 3.7751 3.77287 3.7123 3.6960	481.69 481.44 481.20 480.95 480.70 480.45 480.21 479.96 479.71 479.46	1.0962 +10 1.0909 1.0856 1.0803 1.0750 1.0697 1.0645 1.0593 1.0541	4.39 % 2 - 8 4.413 % 4.452 2 4.452 2 4.4717 4.491 % 4.5111 4.5310 4.5509 4.5710	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-4000 -3950 -3900 -3850 -3800 -3750 -3750 -3650 -3550	-4003 -3952 -3902 -3852 -3802 -3752 -3702 -3652 -3652 -3552	9.8190 9.8189 9.8187 9.8185 9.8184 9.8182 9.8181 9.8179 9.8178	1.7377 + 1 1.7300 1.7224 1.7148 1.7072 1.6996 1.6920 1.6845 1.6770 1.6696	9184.5 9175.1 9165.7 9156.4 9147.0 9137.6 9128.3 9118.9 9109.5 9100.1	3.6798 +25 3.6636 3.6475 3.6314 3.6154 3.5994 3.5835 3.5676 3.5518 3.55360	479.22 478.97 478.72 478.47 478.22 477.97 477.72 477.48 477.23 476.98	1.0438 +10 1.0386 1.0335 1.0284 1.0234 1.0183 1.0133 1.0083 1.0033 9.9830 + 9	4.5912 - 8 4.6115 4.6319 4.6524 4.6730 4.6938 4.7146 4.7356 4.7567	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-3500 -3450 -3400 -3350 -3300 -3250 -3200 -3150 -3100 -3050	-3502 -3452 -3402 -3352 -3352 -3252 -3202 -3152 -3102 -3051	9.8175 9.8173 9.8171 9.8170 9.8168 9.8167 9.8165 9.8164 9.8162 9.8161	1.6621 + 1 1.6547 1.6473 1.6490 1.6326 1.6253 1.6180 1.6107 1.6035 1.5963	9090.8 9081.4 9072.0 9062.7 9053.3 9043.9 9034.6 9025.2 9015.8 9006.4	3.5203 +25 3.5047 3.4091 3.4735 3.4580 3.4426 3.4272 3.4119 3.3966 3.3814	476.73 476.48 476.23 475.98 475.73 475.48 475.23 474.98 474.73 474.88	9.9335 + 9 9.8841 9.8350 9.7860 9.7373 9.6887 9.6404 9.5922 9.5442	4.7992 - 8 4.8206 4.8422 4.8638 4.8856 4.9075 4.9296 4.9517 4.9740 4.9964	28.96 28.96 28.96 28.96 28.96 28.96 28.96 28.96 28.96
-3000 -2950 -2900 -2850 -2800 -2750 -2700 -2650 -2600 -2550	-3001 -2951 -2901 -2851 -2801 -2751 -2701 -2651 -2601 -2551	9.8159 9.8158 9.8156 9.8155 9.8153 9.8151 9.8150 9.8148 9.8147 9.8145	1.5891 + 1 1.5819 1.5748 1.5677 1.5606 1.5535 1.5465 1.5395 1.5325	8997.1 8987.7 8978.3 8969.0 8959.6 8950.2 8940.8 8931.5 8922.1 8912.7	3.3662 +25 3.3511 3.3360 3.3210 3.3660 3.2911 3.2762 3.2614 3.22467 3.2320	474.23 473.98 473.72 473.47 473.22 472.97 472.72 472.47 472.22 471.96	9.4488 + 9 9.4013 9.3541 9.3071 9.2602 9.2136 9.1671 9.1208 9.0747 9.0287	5.0189 - 8 5.0416 5.0643 5.0872 5.1103 5.1334 5.1567 5.1801 5.2037 5.2274	28.96 28.96 28.96 28.96 28.96 28.96 28.96 28.96 28.96
-2500 -2450 -2400 -2350 -2300 -2250 -2200 -2150 -2100 -2050	-2501 -2451 -2401 -2351 -2351 -2251 -2201 -2151 -2101 -2051	9.8144 9.8142 9.8141 9.8139 9.8138 9.8136 9.8134 9.8133 9.8131 9.8130	1.5186 + 1 1.5117 1.5048 1.4979 1.4911 1.4842 7.4774 1.4707 1.4639 1.4572	8903.3 8894.0 8884.6 8875.2 8865.8 8856.5 8847.1 8837.7 8828.4 8819.0	3.2173 +25 3.2027 3.1882 3.1736 3.1592 3.1448 3.1304 3.1161 3.1019 3.0877	471.71 471.46 471.21 470.96 470.70 470.45 470.20 469.95 469.69	8.9830 + 9 8.9374 8.8921 8.8469 8.8019 8.7570 8.7124 8.6679 8.6237 8.5795	5.2512 - 8 5.2751 5.2992 5.3234 5.3478 5.3723 5.3769 5.4217 5.4466 5.4716	28.961 28.961 28.961 28.961 28.961 28.961 28.961 28.961 28.961
-2000 -1950 -1900 -1850 -1800 -1750 -1700 -1650 -1650 -1550	-2001 -1951 -1901 -1851 -1851 -1750 -1700 -1650 -1600 -1550	9.8128 9.8127 9.8125 9.8124 9.8122 9.8121 9.8119 9.8117 9.8116 9.8114	1.4505 + 1 1.4438 1.4372 1.4305 1.4239 1.4173 1.4108 1.4043 1.3977 1.3912	8809.6 8800.2 8790.9 8781.5 8772.1 8762.7 8753.4 8744.0 8734.6 8725.2	3.0735 +25 3.0594 3.0454 3.0314 3.0174 3.0035 2.9897 2.9759 2.9621 2.9484	469.19 468.93 468.68 468.17 467.92 467.66 467.61 467.16	8.5356 + 9 8.4919 8.4483 8.4049 8.3617 8.3187 8.2758 8.22331 8.1906 8.1483	5.4968 - 8 5.5221 5.5476 5.57732 5.5790 5.6249 5.6510 5.6772 5.7036 5.77301	28.961 28.961 28.961 28.961 28.961 28.961 28.961 28.961 28.961
-1500 -1450 -1400 -1350 -1300 -1250 -1200 -1150 -1100 -1050	-1500 -1450 -1400 -1350 -1300 -1250 -1250 -1150 -1100 -1050	9.8113 9.8111 9.8110 9.8107 9.8105 9.8104 9.8102 9.8100 9.8099	1.3848 + 1 1.3783 1.3719 1.3655 1.3591 1.3528 1.3465 1.3402 1.3339 1.3276	8715.9 8706.5 8697.1 8687.7 8678.3 8669.0 8659.6 8650.2 8640.8 8631.5	2.9348 +25 2.9212 2.9076 2.8941 2.8806 2.8672 2.8538 2.8405 2.8273 2.8140	466.65 466.39 466.14 465.88 465.63 465.37 465.12 464.86 464.60	8.1061 + 9 8.0641 8.0223 7.9806 7.9392 7.8979 7.8567 7.8158 7.7750 7.7343	5.7567 - 8 5.7836 5.8105 5.8377 5.8649 5.8924 5.9200 5.9477 5.9756 6.0037	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

			GLOFOIL	NIIAL A	LITTODE, N		JIVI 3		
Alti	tude	Accel. due to gravity	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
H, m	Z, m	g,msec ⁻²	ω, kg m ⁻² sec ⁻²	H _P , m	n, m ⁻³	√, m sec⁻¹	u, sec ⁻¹	L, m	М
- 1000 - 950 - 950 - 850 - 800 - 750 - 700 - 650 - 600 - 550	-1000 -950 -900 -850 -800 -750 -700 -650 -600 -550	9.8097 9.8096 9.8094 9.8093 9.8091 9.8090 9.8088 9.8087 9.8085 9.8083	1.3214 + 1 1.3152 1.3090 1.3028 1.2967 1.2905 1.2844 1.2783 1.2723	8622.1 8612.7 8603.3 8593.9 8584.6 8575.2 8565.8 8566.4 8547.1 8537.7	2.8008 +25 2.7877 2.77%6 2.7%16 2.7%186 2.7357 2.7228 2.7099 2.6971 2.6844	464.09 463.84 463.32 463.07 462.81 462.55 462.30 462.04 461.78	7.6938 + 9 7.6535 7.6134 7.5734 7.5337 7.4940 7.4546 7.4153 7.3762 7.3372	6.0321 - 8 6.0605 6.0890 6.1178 6.1467 6.1757 6.2050 6.2344 6.2639 6.2937	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-500 -450 -400 -350 -350 -250 -200 -150 -50	-500 -450 -400 -350 -350 -250 -200 -150 -100 -50	9.8082 9.8080 9.8079 9.8077 9.8076 9.8074 9.8073 9.8070 9.8068	1.2602 + 1 1.2543 1.2483 1.2423 1.2364 1.2305 1.2246 1.2188 1.2129 1.2071	8528.3 8518.9 8509.5 8500.2 8490.8 8481.4 8472.0 8462.6 8453.3 8443.9	2.6717 +25 2.6590 2.6464 2.6338 2.6213 2.6088 2.5964 2.5964 2.5840 2.5717 2.5594	461.53 461.27 461.01 460.75 460.49 460.24 459.98 459.72 459.46 459.20	7.2984 + 9 7.2598 7.2213 7.1830 7.1449 7.1069 7.0691 7.0314 6.9939 6.9565	6.3236 - 8 6.3537 6.3840 6.4145 6.4451 6.4759 6.5069 6.5381 6.5695 6.6010	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
50 100 150 200 250 300 350 400 450	50 100 150 200 250 300 350 400	9.8065 9.8063 9.8062 9.8060 9.8059 9.8057 9.8054 9.8054	1.1955 1.1898 1.1841 1.1783 1.1727 1.1670 1.1613 1.1557	8425.1 8415.7 8406.4 8397.0 8387.6 8378.2 8388.8 8359.5 8350.1	2.5347 2.5349 2.528 2.5107 2.4986 2.4866 2.4746 2.4627 2.4508 2.4389	458.69 458.43 458.17 457.65 457.65 457.13 456.87 456.61	6.8823 6.8858 6.8087 6.7721 6.7357 6.6995 6.6633 6.6278 6.5916	6.6647 6.6968 6.7292 6.7617 6.7944 6.8273 6.88604 6.8936 6.9271	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
500 550 600 650 700 750 800 850 900	500 550 600 650 700 750 800 850 900	9.8051 9.8050 9.8048 9.8046 9.8045 9.8043 9.8042 9.8040 9.8039 9.8037	1.1445 + 1 1.1390 1.1334 1.1279 1.1224 1.1169 1.1114 1.1000 1.1006	8340.7 8331.3 8321.9 8312.5 8303.2 8293.8 8284.4 8275.0 8265.6 8256.2	2.4271 +25 2.4153 2.4036 2.3919 2.3803 2.3687 2.3572 2.3457 2.3342 2.328	456.35 456.09 455.83 455.57 455.31 455.05 454.78 454.26 454.00	6.5560 + 9 6.5205 6.4851 6.4499 6.4149 6.3800 6.3453 6.3107 6.2762 6.2420	6.9608 - 8 6.99%7 7.0288 7.0631 7.0976 7.132% 7.1673 7.202% 7.2378 7.273%	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
1000 1050 1100 1150 1200 1250 1300 1350 1400	1000 1050 1100 1150 1200 1250 1300 1350 1400	9.8036 9.8034 9.8033 9.8031 9.8029 9.8028 9.8026 9.8025 9.8023 9.8022	1.0898 + 1 1.0844 1.0791 1.0738 1.0685 1.0632 1.0580 1.0527 1.0475 1.0423	8246.8 8237.5 8228.1 8218.7 8209.3 8199.9 8190.5 8181.1 8171.7 8162.3	2.3114 +25 2.3001 2.2888 2.2776 2.2664 2.2552 2.2441 2.2330 2.2220 2.2110	453.74 453.48 453.21 452.95 452.69 452.43 452.17 451.90 451.64 451.38	6.2078 + 9 6.1738 6.1400 6.1063 6.0727 6.0393 6.0061 5.9729 5.9400 5.9071	7-3092 - 8 7-3452 7-3814 7-4178 7-4545 7-4914 7-5285 7-5658 7-6034 7-6412	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
1500 1550 1600 1650 1700 1750 1800 1850 1900	1500 1550 1600 1650 1700 1750 1801 1851 1901	9.8020 9.8019 9.8017 9.8016 9.8014 9.8013 9.8011 9.8009 9.8008 9.8006	1.0371 + 1 1.0320 1.0268 1.0217 1.0166 1.0115 1.0065 1.0014 9.9640 + 0 9.9139	8153.0 8143.6 8134.2 8124.8 8115.4 8106.0 8096.6 8087.2 8077.8 8068.4	2.2000 +25 2.1891 2.1783 2.1674 2.1566 2.1459 2.1352 2.1245 2.1139 2.1033	451.11 450.85 450.59 450.32 450.06 449.79 449.53 449.27 449.00	5.8744 + 9 5.8419 5.8095 5.7772 5.7451 5.7131 5.6813 5.6496 5.6181 5.5866	7.6793 - 8 7.7175 7.7560 7.7948 7.8338 7.8730 7.9124 7.9522 7.9921 8.0323	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
2000 2050 2100 2150 2200 2250 2350 2350 2400 2450	2001 2051 2101 2151 2201 2251 2301 2351 2401 2451	9.8005 9.8003 9.8002 9.8000 9.7999 9.7997 9.7996 9.7994 9.7992 9.7991	9.8641 + 0 9.8144 9.7650 9.7157 9.6667 9.6178 9.5691 9.5206 9.4723 9.4241	8059.1 8049.7 8040.3 8030.9 8021.5 8012.1 8002.7 7993.3 7983.9 7974.5	2.0928 +25 2.0823 2.0718 2.0614 2.0510 2.0407 2.0304 2.0201 2.0099 1.9997	448.47 448.21 447.94 447.68 447.41 447.15 446.88 446.61 446.35	5.5554 + 9 5.5242 5.4932 5.4624 5.4316 5.4011 5.3706 5.3403 5.3101 5.2801	8.0728 - 8 8.1135 8.1544 8.1957 8.2371 8.2789 8.3209 8.3631 8.4056 8.4484	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
2500 2550 2600 2650 2700 2750 2800 2850 2900	2501 2551 2601 2651 2701 2751 2801 2851 2901 2951	9.7989 9.7988 9.7986 9.7985 9.7983 9.7982 9.7980 9.7979 9.7977	9.3762 + 0 9.3284 9.2809 9.2335 9.1863 9.1393 9.0925 9.0458 8.9994	7965.1 7955.7 7946.3 7936.9 7927.5 7918.1 7908.7 7899.3 7889.9 7880.5	1.9896 +25 1.9795 1.9694 1.9594 1.9594 1.9494 1.9395 1.9296 1.9197 1.9099	445.82 445.28 445.02 444.75 444.21 443.95 443.68	5.2501 + 9 5.2204 5.1907 5.1612 5.1318 5.1026 5.0735 5.0445 5.0156 4.9869	8.4915 - 8 8.5348 8.5784 8.6223 8.6665 8.7109 8.7556 8.8006 8.8459 8.8915	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

V 1*:4	tude	Accel.	Specific	Pressure	Number	Particle	Collision	Mean free	Molecular
AIIII	- ude	due to gravity	weight	scale height	density	speed	frequency	path	weight
Z, m	H, m	g,msec ⁻²	ω, kg m ⁻² sec ⁻²	H _P , m	n, m ⁻³	∇, m sec⁻¹	ν, sec ⁻¹	L, m	M
-1000 -950 -950 -850 -800 -750 -700 -650 -600	-1000 -950 -900 -850 -800 -750 -700 -650 -600	9.8097 9.8096 9.8094 9.8093 9.8091 9.8090 9.8088 9.8087 9.8085 9.8083	1.3214 + 1 1.3152 1.3090 1.3028 1.2967 1.2905 1.2844 1.2784 1.2723	8622.1 8612.7 8603.3 8594.0 8584.6 8575.2 8565.8 8556.4 8547.1	2.8009 +25 2.7877 2.77%6 2.7%6 2.7%86 2.7357 2.7228 2.7099 2.6971 2.684%	464.09 463.84 463.58 463.32 463.07 462.81 462.55 462.30 462.04 461.78	7.6939 + 9 7.6536 7.6135 7.5735 7.57337 7.4941 7.4547 7.4154 7.3762 7.3373	6.0320 - 8 6.0604 6.0889 6.1177 6.1466 6.1757 6.2049 6.2343 6.2639 6.2639	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-500 -450 -400 -350 -350 -250 -250 -150 -150	-500 -450 -400 -350 -300 -250 -200 -150 -100	9.8082 9.8080 9.8079 9.8077 9.8076 9.8074 9.8073 9.8071 9.8070 9.8068	1.2603 + 1 1.2543 1.2483 1.2423 1.2364 1.2305 1.2246 1.2188 1.2129 1.2071	8528.3 8518.9 8509.5 8500.2 8490.8 8461.4 8472.0 8462.6 8453.3	2.6717 +25 2.6590 2.6464 2.6338 2.6213 2.6088 2.5964 2.5840 2.5717 2.5594	461.53 461.27 461.01 460.75 460.49 460.24 459.98 459.72 459.46 459.20	7.2985 + 9 7.2598 7.2214 7.1830 7.1849 7.1069 7.0691 7.0314 6.9939 6.9565	6.3236 - 8 6.3537 6.38%0 6.41%5 6.4451 6.4459 6.5069 6.5381 6.5695 6.6010	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
0 50 100	50 100	9.8065 9.8063	1.2013 + 1 1.1955 1.1898	8434.5 8425.1 8415.7	2.5471 +25 2.5349 2.5228	458.94 458.69 458.43	6.9193 + 9 6.8823 6.8454	6.6328 - 8 6.6647 6.6968	28.964 28.964 28.964
150 200 250 300 350 400 450	150 200 250 300 350 400 450	9.8062 9.8060 9.8059 9.8057 9.8056 9.8054 9.8053	1.1841 1.1783 1.1727 1.1670 1.1613 1.1557	8406.4 8397.0 8387.6 8378.2 8368.8 8359.5	2.5107 2.4986 2.4866 2.4746 2.4627 2.4508 2.4389	458.17 457.91 457.65 457.39 457.13 456.87 456.61	6.8087 6.7721 6.7357 6.6995 6.6634 6.6274 6.5916	6.7292 6.7617 6.7944 6.8273 6.8603 6.8936 6.9271	28.964 28.964 28.964 28.964 28.964 28.964
500 550 600 650 700 750 800 850 900	500 550 600 650 700 750 800 850 900	9.8051 9.8050 9.8048 9.8046 9.8045 9.8043 9.8042 9.8040 9.8039	1.1445 + 1 1.1390 1.1334 1.1279 1.1224 1.1169 1.1115 1.1060 1.1006 1.0052	83%0.7 8331.3 8321.9 8312.5 8303.2 8293.8 828%.% 8275.0 8265.6 8256.3	2.4271 +25 2.4154 2.4036 2.3920 2.3803 2.3688 2.3572 2.3457 2.3343 2.3228	456.35 456.09 455.83 455.31 455.05 454.79 454.52 454.26 454.00	6.5560 + 9 6.5205 6.4852 6.4500 6.4150 6.3801 6.3453 6.3108 6.2763 6.2763	6.9608 - 8 6.9947 7.0288 7.0631 7.0976 7.1323 7.1672 7.2024 7.2024 7.2733	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
1000 1050 1100 1150 1200 1250 1300 1350 1400	1000 1050 1100 1150 1200 1250 1300 1350 1400	9.8036 9.8034 9.8033 9.8031 9.8029 9.8028 9.8025 9.8023 9.8022	1.0898 + 1 1.0845 1.0791 1.0738 1.0685 1.0632 1.0580 1.0527 1.0475	8246.9 8237.5 8228.1 8218.7 8209.3 8199.9 8190.6 8181.2 8171.8 8162.4	2.3115 +25 2.3001 2.2889 2.2776 2.2664 2.2553 2.2442 2.2331 2.2221 2.2111	453.74 453.48 453.22 452.95 452.69 452.43 452.17 451.90 451.64	6.2079 + 9 6.1739 6.1401 6.1064 6.0729 6.0395 6.0062 5.9731 5.9402 5.9073	7.3090 - 8 7.3450 7.3812 7.4177 7.4543 7.4912 7.5283 7.5656 7.6032 7.6410	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
1500 1550 1600 1650 1700 1750 1800 1850 1900	1500 1550 1600 1650 1700 1750 1799 1849 1849	9.8020 9.8019 9.8017 9.8016 9.8014 9.8013 9.8011 9.8009 9.8008	1.0372 + 1 1.0320 1.0269 1.0217 1.0166 1.0116 1.0005 1.0015 9.9645 + 0 9.9145	8153.0 8143.6 8134.3 8124.9 8115.5 8106.1 8096.7 8087.3 8077.9	2-2001 +25 2-1892 2-1783 2-1575 2-1567 2-1860 2-1353 2-1247 2-1140 2-1035	451.12 450.85 450.59 450.32 450.06 449.80 449.53 449.27 449.00 448.74	5.8747 + 9 5.8421 5.8098 5.7775 5.7454 5.7135 5.6816 5.6500 5.6184 5.5870	7.6790 - 8 7.7172 7.7557 7.7944 7.8334 7.8726 7.9120 7.9917 7.9917 8.0318	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
2000 2050 2100 2150 2200 2250 2350 2400 2450	1999 2049 2099 2149 2199 2249 2299 2349 2399 2449	9.8005 9.8003 9.8002 9.8000 9.7999 9.7997 9.7996 9.7994 9.7992 9.7991	9.86%7 + 0 9.8151 9.7657 9.716% 9.667% 9.6185 9.5699 9.521% 9.%731 9.%250	8059.2 8049.8 8040.4 8031.0 8021.6 8012.2 8002.8 7993.5 7984.1 7974.7	2.0929 +25 2.0824 2.0720 2.0516 2.0512 2.0409 2.0306 2.0203 2.0101	448.48 448.21 447.95 447.68 447.45 447.15 446.88 446.62 446.35 446.09	5.5558 + 9 5.5246 5.4937 5.4628 5.4321 5.4015 5.3711 5.3408 5.3106 5.2806	8.0723 - 8 8.1129 8.1539 8.1951 8.2365 8.2782 8.3202 8.3202 8.3624 8.4049	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
2500 2550 2600 2650 2700 2750 2800 2850 2900 2950	2499 2549 2599 2649 2699 2749 2799 2849 2899 2949	9.7989 9.7988 9.7986 9.7985 9.7983 9.7982 9.7980 9.7977 9.7977	9.3771 + 0 9.3294 9.2819 9.2345 9.1874 9.1404 9.0936 9.0470 9.0006 8.9544	7965.3 7955.9 7946.5 7937.1 7927.7 7918.4 7909.0 7899.6 7890.2 7880.8	1.9898 +25 1.9797 1.9696 1.9596 1.9497 1.9397 1.9298 1.9200 1.9101	445.82 445.55 445.29 445.02 444.75 444.22 443.95 443.69 443.42	5.2507 + 9 5.2210 5.1913 5.1619 5.1325 5.1033 5.0742 5.0452 5.0452 5.0164 4.9877	8.4906 - 8 8.5339 8.5775 8.6213 8.6655 8.7099 8.7545 8.7995 8.8447 8.8903	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

Alti	tude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
H, m	Z, m	gravity g,msec ⁻²	ω, kg m ⁻² sec ⁻²	height H _P , m	n, m ⁻³	∇, m sec⁻′	ν , sec ⁻¹	L, m	M
3000 3050 3150 3150 3250 3250 3350 3350 3450	3001 3051 3102 3152 3202 3252 3302 3352 3352 3402	9.7974 9.7972 9.7971 9.7969 9.7968 9.7966 9.7965 9.7963 9.7962 9.7960	8.9070 + 0 8.8611 8.8154 8.7698 8.7245 8.6793 8.6343 8.5895 8.5448	7871-1 7861-7 7852-3 7842-9 7833-6 7824-2 7814-8 7805-4 7796-0 7786-5	1.8903 +25 1.8806 1.8709 1.8613 1.8517 1.8422 1.8326 1.8231 1.8137 1.8043	443.14 442.61 442.61 442.34 442.07 441.80 441.53 441.26 440.99 440.72	4.9583 + 9 4.9299 4.9015 4.8733 4.8852 4.8173 4.7895 4.7618 4.7342	8.9374 - 8 8.9835 9.0300 9.0767 9.1238 9.1712 9.2188 9.2668 9.3150 9.3636	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
3500 3550 3600 3650 3700 3750 3850 3850 3900 3950	3502 3552 3602 3652 3702 3752 3802 3852 3902 3952	9.7959 9.7957 9.7955 9.7954 9.7952 9.7951 9.7949 9.7946 9.7946	8.4561 + 0 8.4119 8.3680 8.3242 8.2807 8.2372 8.1940 8.1510 8.1081 8.0653	7777.1 7767.7 7758.3 7748.9 7739.5 7730.1 7720.7 7711.3 7701.9 7692.5	1.7949 +25 1.7856 1.7763 1.77670 1.7578 1.7486 1.7395 1.7303 1.7213	440.45 440.19 439.92 439.65 439.37 439.10 438.83 438.56 438.29 438.02	4.6795 + 9 4.6523 4.6252 4.5983 4.5714 4.5182 4.4917 4.4654 4.4392	9.4125 - 8 9.4617 9.5113 9.5611 9.6113 9.6618 9.7126 9.7638 9.8153 9.8671	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
#000 #050 #100 #150 #250 #300 #350 ##50	4003 4053 4103 4153 4203 4253 4253 4303 4353 4403	9.7943 9.7942 9.7940 9.7938 9.7937 9.7935 9.7934 9.7932 9.7931 9.7929	8.0228 + 0 7.980% 7.9882 7.8962 7.8544 7.8127 7.7711 7.7298 7.6886 7.6476	7683.1 7673.7 7664.3 7654.9 7645.5 7636.1 7626.7 7617.3 7607.9 7598.5	1.7032 +25 1.6942 1.6953 1.6764 1.6676 1.6587 1.6499 1.6412 1.6325 1.6238	437.75 437.48 437.21 436.93 436.39 436.39 436.12 435.85 435.57	4.4131 + 9 4.3872 4.3613 4.3356 4.3100 4.2845 4.2592 4.2337 4.2088 4.1838	9.9193 - 8 9.9718 1.0025 - 7 1.0078 1.0131 1.0185 1.0294 1.0349 1.0404	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
4500 4550 4650 4700 4750 4850 4850 4950	4503 4553 4603 4653 4703 4754 4854 4854 4904	9.7928 9.7926 9.7925 9.7923 9.7922 9.7920 9.7918 9.7917 9.7915 9.7914	7.6068 + 0 7.5661 7.5256 7.4852 7.4851 7.4051 7.3652 7.3255 7.2860 7.2467	7589.1 7579.7 7570.3 7560.8 7551.4 7542.0 7532.6 7523.2 7513.8 7504.4	1.6151 +25 1.6065 1.5980 1.5894 1.5809 1.5724 1.5640 1.5556 1.5472 1.5389	435.03 434.75 434.48 434.21 433.93 433.66 433.39 433.11 432.84 432.56	4.1589 + 9 4.1341 4.1095 4.0849 4.0605 4.0362 4.0120 3.9880 3.9640	1.0460 - 7 1.0516 1.0573 1.0629 1.0687 1.0744 1.0802 1.0861 1.0919	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
5000 5050 5100 5150 5250 5250 5350 5450	5004 5054 5104 5154 5204 5254 5304 5355 5405	9.7912 9.7911 9.7909 9.7908 9.7906 9.7905 9.7903 9.7901 9.7900 9.7898	7.2075 + 0 7.1684 7.1296 7.0909 7.0523 7.0140 6.9757 6.9377 6.8998 6.8620	7495.0 7485.6 7476.2 7466.7 7457.3 7447.9 7438.5 7429.1 7419.7	1.5306 +25 1.5223 1.5141 1.5059 1.4978 1.4895 1.4815 1.4735 1.4735 1.4654 1.4575	432-29 432-01 431-74 431-46 431-19 430-91 430-64 430-36 430-08 429-81	3.9164 + 9 3.8928 3.8693 3.8459 3.9226 3.7794 3.7754 3.77534 3.7306 3.7078	1.1038 - 7 1.1098 1.1158 1.1219 1.1280 1.1342 1.1404 1.1466 1.1529 1.1592	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
5500 5550 5600 5650 5700 5750 5850 5850 5950	5505 5555 5605 5655 5705 5705 5805 5805 5855 5905 5956	9.7897 9.7895 9.7894 9.7892 9.7891 9.7888 9.7888 9.7885 9.7885	6.8244 + 0 6.7870 6.7897 6.7126 6.6757 6.6389 6.6022 6.5657 6.5294 6.4932	7400.9 7391.4 7382.0 7372.6 7363.2 7353.8 7344.4 7335.0 7325.5 7316.1	1.4495 +25 1.4416 1.4337 1.4258 1.4180 1.4102 1.4024 1.3947 1.3870 1.3793	429.53 429.26 428.98 428.42 428.15 427.87 427.59 427.31 427.04	3.6852 + 9 3.6627 3.6403 3.6180 3.5958 3.5737 3.5518 3.5299 3.5081 3.4865	1.1656 - 7 1.1720 1.1784 1.1849 1.1915 1.1980 1.2047 1.2113 1.2181	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
6000 6050 6100 6150 6200 6250 6350 6400 6450	6006 6056 6106 6156 6206 6256 6306 6356 6406 6457	9.7881 9.7880 9.7878 9.7877 9.7875 9.7874 9.7872 9.7871 9.7869 9.7868	6.4572 + 0 6.4213 6.3856 6.3500 6.3146 6.2794 6.2443 6.2093 6.1745	7306.7 7297.3 7287.9 7278.5 7269.1 7259.6 7250.2 7240.8 7231.4 7222.0	1.3717 +25 1.3641 1.3565 1.3490 1.3415 1.3340 1.3266 1.31192 1.3118 1.3045	426.76 426.48 426.20 425.92 425.64 425.36 425.08 424.80 424.53 424.25	3.4649 + 9 3.4435 3.4221 3.4009 3.3798 3.3588 3.3588 3.3170 3.2963 3.2757	1.2317 - 7 1.2385 1.2454 1.2524 1.2594 1.2664 1.2735 1.2807 1.2879	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
6500 6550 6600 6650 6750 6750 6800 6850 6900	6507 6557 6607 6657 6707 6757 6807 6857 6907 6958	9.7866 9.7864 9.7863 9.7861 9.7856 9.7858 9.7857 9.7855 9.7854 9.7852	6.1053 + 0 6.0709 6.0367 6.0027 5.9687 5.9350 5.9013 5.8679 5.8345 5.8013	7212.5 7203.1 7193.7 7184.3 7174.9 7165.4 7156.0 7146.6 7137.2 7127.8	1.2972 +25 1.2899 1.2826 1.2754 1.2682 1.2611 1.2539 1.2468 1.2398 1.2328	423.97 423.68 423.40 423.12 422.84 422.56 422.28 422.00 421.72 421.44	3.2552 + 9 3.2348 3.2145 3.1741 3.1541 3.1541 3.1342 3.1144 3.0947 3.0751	1.3024 - 7 1.3098 1.3172 1.3226 1.3322 1.3397 1.3473 1.3550 1.3627 1.3705	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

Altit	tude	Accel.	Specific	Pressure scale	Number	Particle	Collision		Molecular
Z, m	H, m		weight ω, kg m²sec²		density n, m ⁻³	speed V, m sec ⁻¹	frequency ν , sec ⁻¹	path L, m	weight M
3000 3050 3100 3150 3200 3250 3300 3350 3400 3450	2999 3049 3098 3148 3198 3248 3248 3348 3348	9.7974 9.7972 9.7971 9.7969 9.7968 9.7965 9.7965 9.7963 9.7962 9.7960	8.9083 + 0 8.8625 8.8168 8.7713 8.77259 8.6808 8.6358 8.5910 8.5964	H _p , m 7871.4 7862.0 7852.6 7843.2 7833.9 7824.5 7815.1 7805.7 7796.3 7786.9	1.8906 +25 1.8809 1.8712 1.8616 1.8520 1.8425 1.8330 1.8235 1.8140 1.8046	443.15 442.88 442.62 442.35 442.08 441.81 441.54 441.27 441.27	4.9591 + 9 4.9307 4.9024 4.8742 4.8861 4.8182 4.7004 4.7628 4.7552	8.9361 - 8 8.9822 9.0286 9.0753 9.1223 9.1696 9.2172 9.2651 9.3133 9.3618	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
3500 3550 3600 3650 3700 3750 3800 3850 3950	3498 3548 3598 3648 3698 3748 3798 3848 3898 3948	9.7959 9.7957 9.7956 9.7954 9.7952 9.7951 9.7949 9.7948 9.7946	8.%578 + 0 8.%137 8.3698 8.3261 8.2825 8.2392 8.1960 8.1530 8.1101 8.067%	7777.5 7768.1 7758.7 7749.3 7739.9 7730.6 7721.2 7711.8 7702.4 7693.0	1.7953 +25 1.7859 1.7767 1.77674 1.7582 1.7490 1.7399 1.7308 1.7217	440.47 440.20 439.93 439.66 439.39 439.12 438.85 438.58 438.31 438.03	4.6805 + 9 4.6533 4.6263 4.5994 4.5726 4.5194 4.4930 4.4667 4.4405	9.4106 - 8 9.4598 9.5092 9.5590 9.6091 9.6596 9.7103 9.7614 9.8128 9.8646	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
4000 4050 4100 4150 4200 4250 4350 4350 4400 4450	3997 4047 4097 4147 4197 4247 4297 4347 4397	9.7943 9.7942 9.7940 9.7939 9.7937 9.7935 9.7934 9.7932 9.7931 9.7929	8.0249 + 0 7.9826 7.9805 7.8985 7.8567 7.8150 7.7736 7.7323 7.6911 7.6502	7683.6 7674.2 7664.8 7655.4 7646.0 7636.6 7627.2 7617.8 7608.5 7599.1	1.7037 +25 1.6947 1.6858 1.6769 1.6592 1.6592 1.6505 1.6417 1.6330 1.6243	437.76 437.49 437.22 436.95 436.68 436.41 436.13 435.86 435.59	4.4144 + 9 4.3885 4.3627 4.3370 4.3114 4.2860 4.2606 4.2354 4.2103 4.1854	9.9166 - 8 9.9691 1.0022 - 7 1.0075 1.0128 1.0182 1.0236 1.0291 1.0346 1.0401	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
4500 4550 4600 4650 4700 4750 4800 4850 4900	4497 4547 4597 4647 4746 4796 4846 4896 4946	9.7928 9.7926 9.7925 9.7923 9.7922 9.7920 9.7919 9.7917 9.7915 9.7914	7.6094 + 0 7.5687 7.5283 7.4880 7.4479 7.4079 7.3681 7.3285 7.2890 7.2497	7589.7 7580.3 7570.9 7561.5 7552.1 7542.7 7533.3 7523.9 7514.5 7505.1	1.6157 +25 1.6071 1.5985 1.5980 1.5815 1.5730 1.5646 1.5562 1.5479	435.05 434.77 434.50 434.23 433.95 433.68 433.13 432.86 432.58	4.1605 + 9 4.1357 4.1111 4.0866 4.0622 4.0379 4.0138 3.9897 3.9658 3.9420	1.0457 - 7 1.0513 1.0569 1.0626 1.0683 1.0740 1.0798 1.0856 1.0915	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
5000 5050 5100 5150 5200 5250 5300 5350 5400 5450	4996 5046 5096 5146 5146 5246 5246 5346 5395 5445	9.7912 9.7911 9.7909 9.7908 9.7906 9.7905 9.7903 9.7902 9.7900 9.7899	7.2105 + 0 7.1716 7.1328 7.0941 7.0556 7.0173 6.9791 6.9411 6.9032 6.8655	7495.7 7486.3 7476.9 7467.5 7458.1 7448.7 7439.3 7429.9 7420.6 7411.2	1.5313 +25 1.5230 1.5148 1.5066 1.4984 1.4903 1.4822 1.4742 1.4662 1.4582	432.31 432.04 431.76 431.49 431.21 430.94 430.66 430.39 430.11 429.83	3.9183 + 9 3.8947 3.8712 3.8478 3.8246 3.8014 3.7784 3.7555 3.7327 3.7099	1.1033 - 7 1.1093 1.1153 1.1153 1.1214 1.1275 1.1336 1.1398 1.1460 1.1523 1.1586	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
5500 5550 5600 5650 5700 5750 5800 5850 5900	5495 5545 5595 5645 5695 5745 5795 5845 5845 5944	9.7897 9.7895 9.7894 9.7892 9.7891 9.7889 9.7886 9.7886 9.7885	6.8280 + 0 6.7906 6.7534 6.7164 6.6794 6.6427 6.6061 6.5697 6.5334 6.4973	7401.8 7392.4 7383.0 7373.6 7364.2 7354.8 7345.4 7336.0 7326.6 7317.2	1.4502 +25 1.4423 1.4344 1.4266 1.4188 1.4110 1.4032 1.3955 1.3878 1.3802	429.56 429.28 429.01 428.73 428.45 428.18 427.90 427.62 427.34 427.07	3.6874 + 9 3.6649 3.6425 3.6202 3.5981 3.5760 3.5541 3.5322 3.5105 3.4889	1.1650 - 7 1.1713 1.1778 1.1843 1.1908 1.1974 1.2040 1.2106 1.2173 1.2241	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
6000 6050 6100 6150 6200 6250 6350 6400 6450	5994 6044 6094 6144 6244 6294 6344 6394	9.7882 9.7880 9.7879 9.7877 9.7875 9.7874 9.7872 9.7871 9.7868	6.4613 + 0 6.4255 6.3898 6.3543 6.3189 6.2837 6.2286 6.2137 6.1790 6.1443	7307.8 7298.4 7289.0 7279.6 7270.2 7260.8 7251.4 7242.0 7232.6 7223.2	1.3726 +25 1.3650 1.3574 1.3499 1.3424 1.3350 1.3275 1.3201 1.3128 1.3054	426.79 426.51 426.23 425.96 425.68 425.40 425.12 424.84 424.56 424.28	3.4674 + 9 3.459 3.4246 3.4034 3.3823 3.3613 3.3404 3.3196 3.2990 3.2784	1.2309 - 7 1.2377 1.2446 1.2515 1.2585 1.2656 1.2726 1.2778 1.2870 1.2942	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
6500 6550 6600 6650 6750 6750 6800 6850 6950	6493 6543 6593 6693 6743 6793 6893 6893	9.7866 9.7865 9.7863 9.7862 9.7860 9.7859 9.7857 9.7855 9.7854 9.7852	6.1099 + 0 6.0756 6.0414 6.0074 5.9735 5.9398 5.9062 5.8728 5.8395 5.8064	7213.8 7204.4 7195.0 7185.6 7176.2 7166.8 7157.4 7148.0 7148.0 7129.2	1.2981 +25 1.2909 1.2836 1.2764 1.2692 1.2621 1.2550 1.2479 1.2408 1.2338	424.00 423.72 423.44 423.16 422.88 422.60 422.32 422.04 421.76 421.48	3.2579 + 9 3.2375 3.2172 3.1970 3.1770 3.1570 3.1371 3.1173 3.0976 3.0781	1.3015 - 7 1.3088 1.3162 1.3236 1.3311 1.3386 1.3462 1.3539 1.3616 1.3693	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

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Alti	lude	Accel. due to gravity	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
H, m	Z, m	g,msec ⁻²	weigiii ω, kg m² sec²	H _P , m	n, m ⁻³	V, m sec⁻¹	ν, sec ⁻¹	L, m	М
7000 7050 7150 7150 7250 7250 7350 7350 7450	7008 7058 7108 7158 7208 7258 7308 7359 7409 7459	9.7851 9.7849 9.7848 9.7846 9.7844 9.7843 9.7841 9.7840 9.7838	5.7683 + 0 5.7354 5.7026 5.6700 5.6376 5.6052 5.5731 5.5410 5.5091 5.4774	7118.3 7108.9 7099.5 7090.1 7080.6 7071.2 7061.8 7052.4 7043.0 7033.5	1.2257 +25 1.2188 1.2118 1.2049 1.1980 1.1912 1.1844 1.1776 1.1708	421.15 420.87 420.59 420.31 420.02 419.74 419.18 418.89 418.61	3.0556 + 9 3.0362 3.0168 2.9976 2.9785 2.9595 2.9405 2.9217 2.9030 2.8843	1.3783 - 7 1.3862 1.3941 1.4021 1.4102 1.4183 1.4265 1.4347 1.4430 1.4513	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
7500 7550 7600 7650 7750 7750 7800 7850 7900 7950	7509 7559 7609 7659 7709 7759 7810 7860 7910	9.7835 9.7834 9.7832 9.7831 9.7829 9.7827 9.7826 9.7824 9.7823 9.7821	5.4457 + 0 5.4143 5.3829 5.3517 5.3207 5.2897 5.2589 5.2283 5.1978 5.1674	7024.1 7014.7 7005.3 6995.8 6986.4 6977.0 6967.5 6958.1 6948.7 6939.3	1.1574 +25 1.1507 1.1441 1.1375 1.1309 1.1243 1.1178 1.1113 1.1048	418.32 418.04 417.76 417.47 417.19 416.90 416.62 416.33 416.05	2.8658 + 9 2.8873 2.8290 2.8107 2.7925 2.7744 2.7564 2.7385 2.7207 2.7030	1.4597 - 7 1.4682 1.4767 1.4853 1.4939 1.5027 1.5114 1.5203 1.5292 1.5381	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
8000 8050 8100 8150 8200 8250 8300 8450 8450	8010 8060 8110 8160 8211 8261 8311 8361 8411	9.7820 9.7818 9.7817 9.7815 9.7814 9.7812 9.7811 9.7809 9.7807 9.7806	5.1372 + 0 5.1071 5.0771 5.0473 5.0176 4.9880 4.9586 4.9293 4.9001 4.8711	6929.8 6920.4 6911.0 6901.6 6892.1 6882.7 6873.3 6863.8 6854.4 6845.0	1.0920 +25 1.0856 1.0792 1.0729 1.0666 1.0604 1.0541 1.0419 1.0417	415.48 415.19 414.90 414.62 414.33 414.04 413.76 413.47 413.18 412.89	2.6854 + 9 2.6679 2.6504 2.6331 2.6158 2.5987 2.5816 2.5646 2.5477 2.5309	1.5472 - 7 1.5563 1.5654 1.5746 1.5839 1.5933 1.6027 1.6122 1.6218 1.6314	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
8500 8550 8600 8650 8700 8750 8850 8850 8950	8511 8562 8612 8662 8712 8762 8812 8862 8912	9.7804 9.7803 9.7801 9.7800 9.7798 9.7797 9.7795 9.7794 9.7792 9.7791	4.8422 + 0 4.8134 4.7848 4.7563 4.7279 4.6997 4.6715 4.6436 4.6157 4.5880	6835.5 6826.1 6816.7 6807.2 6797.8 6788.4 6779.0 6769.5 6760.1 6750.7	1.0294 +25 1.0233 1.0173 1.0172 1.0052 9.9922 +24 9.9325 9.8132 9.8141 9.7553	412-61 412-32 412-03 411-74 411-45 411-16 410-88 410-59 410-30 410-01	2.5141 + 9 2.4975 2.4809 2.4645 2.4481 2.4318 2.4156 2.3995 2.3834 2.3675	1.6412 - 7 1.6509 1.6608 1.6707 1.6807 1.6908 1.7009 1.7112 1.7215	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
9000 9050 9100 9150 9250 9350 9350 9450 9450	9013 9063 9113 9163 9213 9263 9314 9364 9414	9.7789 9.7787 9.7786 9.7784 9.7783 9.7781 9.7780 9.7778 9.7777	4.5604 + 0 4.5329 4.5055 5.4783 4.4512 4.4243 4.3974 4.3707 4.3841 4.3176	6741.2 6731.8 6722.3 6712.9 6703.5 6694.0 6684.6 6675.2 6665.7 6656.3	9.6968 +24 9.6385 9.5805 9.5228 9.4653 9.4081 9.3512 9.2945 9.2381 9.1819	409.72 409.43 409.14 408.85 408.56 408.27 407.97 407.68 407.39 407.10	2.3516 + 9 2.3358 2.3201 2.3045 2.2890 2.2735 2.2581 2.2428 2.2276 2.2125	1.7423 - 7 1.7528 1.7634 1.7741 1.7749 1.7958 1.8067 1.8177 1.8288 1.8400	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
9500 9550 9600 9650 9700 9750 9850 9900 9950	9514 9564 9615 9665 9715 9765 9815 9865 9915	9.7774 9.7772 9.7770 9.7769 9.7767 9.7766 9.7764 9.7763 9.7761 9.7760	4.2913 + 0 4.2651 4.2390 4.2130 4.1871 4.1614 4.1358 4.1103 4.0849 4.0597	6646.9 6637.4 6628.0 6618.6 6609.1 6599.7 6590.2 6580.8 6571.4 6561.9	9-1261 +24 9-0704 9-0151 8-9600 8-9051 8-8505 8-7962 8-7421 8-6883 8-6347	406.81 406.52 406.22 405.93 405.64 405.35 405.05 404.76 404.47	2.1975 + 9 2.1825 2.1676 2.1528 2.1381 2.1235 2.1089 2.0944 2.0800 2.0657	1.8513 - 7 1.8626 1.8740 1.8856 1.8972 1.9089 1.9207 1.9326 1.9445 1.9566	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
10000 10050 10100 10150 10200 10250 10300 10350 10400	10016 10066 10116 10166 10216 10267 10317 10367 10417 10467	9.7758 9.7757 9.7755 9.7754 9.7750 9.7750 9.7749 9.7747 9.7746	4.0345 + 0 4.0095 3.9846 3.9599 3.9352 3.9107 3.8862 3.88619 3.8378 3.8137	6552.5 6543.0 6533.6 6524.2 6514.7 6505.3 6495.8 6486.4 6476.9 6467.5	8.5814 +24 8.5283 8.4755 8.4755 8.3706 8.3706 8.3186 8.2668 8.2152 8.1639 8.1128	403.88 403.58 403.29 402.70 402.10 402.11 401.81 401.52 401.22	2.0514 + 9 2.0373 2.0232 2.0092 1.9952 1.9814 1.9676 1.9539 1.9402 1.9267	1.9688 - 7 1.9810 1.9933 2.0058 2.0183 2.0310 2.0437 2.0565 2.0694 2.0825	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
10500 10550 10600 10650 10700 10750 10800 10850 10900	10517 10568 10618 10668 10718 10768 10818 10869 10919 10969	9.7743 9.7741 9.7740 9.7736 9.7737 9.7735 9.7734 9.7732 9.7730 9.7729	3.7897 + 0 3.7659 3.7422 3.7186 3.6951 3.6717 3.6484 3.6253 3.6022 3.5793	6458.1 6448.6 6439.2 6429.7 6420.3 6410.8 6401.4 6392.0 6382.5 6373.1	8.0620 +24 8.0114 7.9610 7.9109 7.8611 7.8115 7.7621 7.7129 7.6640 7.6154	400.93 400.63 400.33 400.04 399.74 399.14 398.85 398.85 398.25	1.9132 + 9 1.8998 1.8864 1.8732 1.8600 1.8469 1.8338 1.8209 1.8080 1.7951	2.0956 - 7 2.1088 2.1222 2.1356 2.1492 2.1628 2.1766 2.1904 2.2044 2.2185	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

Altit	tude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
Z, m	H, m	gravity g,msec ^{-≥}	ω,kg m ⁻² sec ⁻²	height H _P , m	n, m ⁻³	⊽, m sec⁻¹	ν , sec ⁻¹	L, m	M
7000 7050 7100 7150 7200 7250 7350 7350 7400 7450	6992 7042 7092 7142 7192 7292 7292 7342 7391 7441	9.7851 9.7849 9.7848 9.7846 9.7845 9.7843 9.7842 9.7840 9.7839	5.7734 + 0 5.7405 5.7405 5.6753 5.6428 5.6106 5.5784 5.5146 5.5146 5.4829	7119.8 7110.4 7101.0 7091.6 7082.2 7072.8 7063.4 7054.0 7044.6 7035.2	1.2268 +25 1.2199 1.2129 1.2060 1.1992 1.1923 1.1855 1.1787 1.1720 1.1653	421-20 420-92 420-63 420-35 420-07 419-79 419-51 419-22 418-94 418-66	3.0586 + 9 3.0392 3.0199 3.0007 2.9816 2.9826 2.9437 2.9249 2.9062 2.8876	1.3771 - 7 1.3850 1.3929 1.4008 1.4089 1.4170 1.4251 1.4333 1.4415 1.4499	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
7500 7550 7600 7650 7700 7750 7800 7850 7900 7950	7491 7541 7591 7641 7691 7741 7790 7840 7890 7940	9.7835 9.7834 9.7832 9.7831 9.7829 9.7828 9.7826 9.7825 9.7823 9.7823	5.4513 + 0 5.4199 5.3886 5.3574 5.3264 5.2956 5.2648 5.2342 5.2038 5.1734	7025.8 7016.4 7007.0 6997.6 6988.2 6978.8 6969.3 6959.9 6950.5 6941.1	1.1586 +25 1.1519 1.1453 1.1387 1.1321 1.1256 1.1190 1.1126 1.1061 1.0997	418.37 418.09 417.81 417.52 417.24 416.96 416.67 416.39 416.10	2.8690 + 9 2.8506 2.8323 2.8140 2.7759 2.7778 2.7759 2.7420 2.7242 2.7065	1.4582 - 7 1.4667 1.4752 1.4837 1.4923 1.5010 1.5097 1.5185 1.5274	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
8000 8050 8100 8150 8200 8250 8350 8400 8450	7990 8040 8090 8140 8189 8239 8289 8339 8389 8439	9.7820 9.7819 9.7817 9.7815 9.7814 9.7812 9.7811 9.7809 9.7808	5.1432 + 0 5.1132 5.0833 5.0535 5.0238 4.9943 4.99649 4.9357 4.9066	6931.7 6922.3 6912.9 6903.5 6894.1 6884.7 6875.3 6865.9 6856.5 6847.1	1.0933 +25 1.0869 1.0806 1.0742 1.0680 1.0617 1.0555 1.0493 1.0431	415.53 415.25 414.96 414.39 414.10 413.82 413.53 413.25 412.96	2.6889 + 9 2.6714 2.6540 2.6367 2.6195 2.6023 2.5853 2.5683 2.5514 2.5346	1.5453 - 7 1.5544 1.5635 1.5727 1.5820 1.5913 1.6007 1.6101 1.6197	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
8500 8550 8600 8650 8700 8750 8800 8850 8900	8489 8539 8588 8638 8688 8738 8788 8888 8838	9.7805 9.7803 9.7802 9.7800 9.7799 9.7797 9.7796 9.7794 9.7792 9.7791	4.8487 + 0 4.8200 4.7914 4.7630 4.7346 4.7064 4.6784 4.6504 4.6226 4.5949	6837.7 6828.3 6818.9 6809.5 6800.1 6790.7 6781.2 6771.8 6762.4 6753.0	1.0308 +25 1.0247 1.0187 1.0126 1.0066 1.0007 9.9470 +24 9.8878 9.8288 9.7701	\$12.67 \$12.38 \$12.10 \$11.81 \$11.52 \$110.23 \$10.66 \$10.37 \$10.08	2.5179 + 9 2.5013 2.4848 2.4683 2.4520 2.4357 2.4195 2.4034 2.3874 2.3715	1.6389 - 7 1.6487 1.6585 1.6684 1.6783 1.6884 1.6985 1.7086 1.7189	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
9000 9050 9100 9150 9250 9350 9350 9400 9450	8987 9037 9087 9137 9187 9237 9286 9336 9386 9436	9.7789 9.7788 9.7786 9.7785 9.7783 9.7782 9.7780 9.7777 9.7777	4.5674 + 0 %.5399 b.5126 4.4855 4.48584 b.4315 b.4047 4.3780 4.3515 b.3250	67%3.6 673%.2 672%.8 6715.4 6706.0 6696.6 6687.2 6677.8 6668.4 6658.9	9.7116 +2% 9.6535 9.5956 9.5379 9.4806 9.4235 9.3666 9.3100 9.2537 9.1977	409.79 409.50 409.21 408.63 408.63 408.05 407.76 407.47	2.3556 + 9 2.3399 2.3242 2.3086 2.2931 2.2776 2.2623 2.2470 2.2318 2.2167	1.7396 - 7 1.7501 1.7607 1.7713 1.7820 1.7928 1.8037 1.8147 1.8257	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
9500 9550 9600 9650 9750 9750 9800 9850 9900	9486 9536 9586 9635 9685 9735 9785 9835 9885	9.7774 9.7772 9.7771 9.7769 9.7768 9.7766 9.7765 9.7763 9.7762 9.7760	4.2987 + 0 4.2726 4.2465 4.2206 4.1691 4.1695 4.1180 4.0927 4.0675	6649.5 6640.1 6630.7 6621.3 6611.9 6602.5 6593.1 6583.7 6574.3 6564.9	9.1419 +24 9.0863 9.0311 8.9761 8.9213 8.8668 8.8126 8.7586 8.7048 8.6514	406.89 406.60 406.31 406.02 405.72 405.43 405.14 404.85 404.26	2.2017 + 9 2.1868 2.1719 2.1571 2.1424 2.1278 2.1133 2.0988 2.0844 2.0701	1.8481 - 7 1.8593 1.8707 1.8822 1.8937 1.9054 1.9171 1.9289 1.9408 1.9528	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
10000 10050 10100 10150 10250 10250 10350 10400 10450	9984 10034 10084 10134 10184 10233 10263 10333 10383 10433	9.7759 9.7757 9.7756 9.7754 9.7753 9.7751 9.7749 9.7748 9.7746	4.0M24 + 0 4.0175 3.9926 3.9433 3.9188 3.8944 3.8701 3.8460 3.8219	6555.4 6546.0 6536.6 6527.2 6517.8 6508.4 6499.0 6489.6 6480.2 6470.7	8.5981 +24 8.5451 8.4924 8.4399 8.3877 8.3357 8.2840 8.2325 8.1813 8.1303	403.97 403.68 403.38 403.09 402.80 402.50 402.21 401.62 401.32	2.0559 + 9 2.0418 2.0277 2.0137 1.9998 1.9859 1.9722 1.9585 1.9448 1.9313	1.9649 - 7 1.9771 1.9894 2.0018 2.0142 2.0268 2.0394 2.0522 2.0650 2.0780	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
10500 10550 10600 10650 10700 10750 10800 10850 10900 10950	10483 10533 10582 10632 10682 10732 10782 10832 10881 10931	9.7743 9.7742 9.7740 9.7739 9.7737 9.7736 9.7734 9.7733 9.7731 9.7729	3.7980 + 0 3.7742 3.7505 3.7270 3.7035 3.6802 3.6569 3.6338 3.6108 3.5879	6461.3 6451.9 6442.5 6433.1 6423.7 6414.3 6404.9 6395.4 6386.0 6376.6	8.0795 +24 8.0290 7.9788 7.9288 7.8790 7.8294 7.7801 7.7311 7.6823 7.6337	401.03 400.73 400.44 400.14 399.85 399.55 399.25 398.96 398.66 398.36	1.9178 + 9 1.9044 1.8911 1.8779 1.8647 1.8516 1.8386 1.8256 1.8128 1.8000	2.0910 - 7 2.1042 2.1174 2.1308 2.1443 2.1578 2.1715 2.1853 2.1992 2.2132	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

Altif	tude	Accel.	Specific	Pressure	Number	Particle	Collision		Molecular
H, m	Z, m	due to gravity a.msec ⁻²	weight ω, kg m ⁻² sec ⁻²	scale height H _P , m	density n, m ⁻³	speed V, m sec ⁻	frequency $ u$, sec ⁻¹	path L, m	weight M
11000 11100 11200 11300 11400 11500 11600 11700 11800 11900	11019 11119 11220 11320 11420 11521 11621 11722 11822 11922	9.7727 9.7724 9.7724 9.7718 9.7715 9.7712 9.7709 9.7706 9.7703 9.7700	3.5565 + 0 3.5007 3.4458 3.3918 3.3387 3.2863 3.2348 3.1841 3.1342 3.0850	6363.6 6363.8 6364.0 6364.2 6364.4 6364.6 6365.0 6365.2	7-5669 +24 7-4486 7-3320 7-2173 7-1044 6-9932 6-8838 6-7761 6-6701 6-5658	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	1.7824 + 9 1.7545 1.7270 1.7000 1.6734 1.6472 1.6215 1.5961 1.5711	2.2327 - 7 2.2682 2.3042 2.3409 2.3781 2.4159 2.4543 2.4933 2.5329 2.5731	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
12000 12100 12200 12300 12400 12500 12600 12700 12800 12900	12023 12123 12223 12324 12424 12525 12625 12725 12826 12926	9.7697 9.7693 9.7690 9.7687 9.7684 9.7681 9.7678 9.7675 9.7672 9.7669	3.0367 + 0 2.9891 2.9422 2.8961 2.8507 2.8060 2.7620 2.7187 2.6761 2.6342	6365.6 6365.8 6366.0 6366.2 6366.4 6366.6 6367.0 6367.2 6367.4	6.4630 +24 6.3619 6.2624 6.1644 6.0680 5.9730 5.8796 5.7876 5.7876 5.6971 5.6079	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	1.5224 + 9 1.4985 1.4751 1.4520 1.4293 1.4069 1.3849 1.3633 1.3419	2.6140 - 7 2.6556 2.6578 2.7407 2.7842 2.8285 2.8734 2.9191 2.9655 3.0126	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
13000 13100 13200 13300 13400 13500 13600 13700 13800	13027 13127 13227 13328 13428 13529 13629 13730 13830 13930	9.7666 9.7663 9.7660 9.7657 9.7653 9.7650 9.7647 9.7644 9.7641	2.5929 + 0 2.5522 2.5122 2.4728 2.4341 2.3959 2.3583 2.3214 2.2850 2.2492	6367.6 6367.8 6368.0 6368.2 6368.4 6368.6 6368.8 6369.0 6369.2 6369.4	5.5202 +24 5.4338 5.3488 5.2651 5.1828 5.1017 5.0218 4.9433 4.8659 4.7898	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	1.3003 + 9 1.2799 1.2599 1.2402 1.2208 1.2017 1.1829 1.1644 1.1462 1.1282	3.0605 - 7 3.1092 3.1586 3.2088 3.2598 3.3116 3.3642 3.4177 3.4720 3.5272	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
14000 14100 14200 14300 14500 14500 14600 14700 14800 14900	14031 14131 14232 14332 14433 14533 14634 14734 14835 14935	9.7635 9.7632 9.7629 9.7626 9.7623 9.7620 9.7616 9.7613 9.7610 9.7607	2.2139 + 0 2.1792 2.1450 2.1114 2.0783 2.0457 2.0137 1.9821 1.9510 1.9204	6369.6 6369.8 6370.0 6370.2 6370.4 6370.6 6371.0 6371.3 6371.5	4.7149 +24 4.6411 4.5685 4.4970 4.4267 4.3574 4.2892 4.2221 4.1561 4.0911	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	1.1106 + 9 1.0932 1.0761 1.0593 1.0427 1.0264 1.0103 9.9452 + 8 9.7896 9.6364	3.5833 - 7 3.6402 3.6981 3.7569 3.8166 3.8772 3.9388 4.0014 4.0650 4.1297	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
15000 15100 15200 15300 15400 15600 15600 15700 15800 15900	15035 15136 15236 15337 15437 15538 15638 15739 15839 15940	9.7604 9.7601 9.7598 9.7595 9.7592 9.7589 9.7586 9.7583 9.7580 9.7576	1.8903 + 0 1.8607 1.8315 1.8028 1.7746 1.77467 1.7194 1.6659 1.6659	6371.7 6371.9 6372.1 6372.3 6372.5 6372.7 6373.1 6373.1 6373.3	4.0271 +24 3.9640 3.9020 3.8410 3.7809 3.7217 3.6635 3.6032 3.5498 3.4942	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	9.4857 + 8 9.3373 9.1912 9.0074 8.9058 8.7665 8.6293 8.4943 8.3614 8.2306	4.1952 - 7 4.2620 4.3297 4.3985 4.4684 4.5395 4.6116 4.6849 4.7594 4.8350	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
16000 16100 16200 16300 16400 16500 16600 16700 16800	16040 16141 16241 16342 16442 16443 16643 16744 16845 16945	9.7573 9.7570 9.7567 9.7564 9.7561 9.7558 9.7555 9.7552 9.7552 9.7549	1.6141 + 0 1.5888 1.5638 1.5152 1.4914 1.4681 1.4451 1.4224	6373.7 6373.9 6374.1 6374.5 6374.7 6374.7 6375.1 6375.3 6375.5	3.4396 +24 3.3858 3.3828 3.2806 3.2293 3.1788 3.1291 3.0801 3.0319 2.9845	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	8.1019 + 8 7.9751 7.8503 7.7275 7.6066 7.4876 7.3705 7.2552 7.1416 7.0299	4.9119 - 7 4.9899 5.0692 5.1498 5.2317 5.3148 5.3993 5.4851 5.5723 5.6608	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
17000 17100 17200 17300 17400 17500 17600 17700 17800 17900	17046 17146 17247 17347 17448 17548 17649 17749 17850 17951	9.7543 9.7540 9.7536 9.7533 9.7530 9.7527 9.7524 9.7521 9.7518 9.7515	1.3782 + 0 1.3565 1.3353 1.3144 1.2937 1.2735 1.2535 1.2339 1.2145	6375.7 6375.9 6376.1 6376.3 6376.5 6376.7 6377.1 6377.1 6377.3	2.9378 +24 2.8918 2.8466 2.8020 2.7582 2.7151 2.6726 2.6308 2.5896 2.5491	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	6.9199 + 8 6.8117 6.7051 6.6002 6.4969 6.3953 6.2952 6.1967 6.0998 6.0044	5.7508 - 7 5.8422 5.9351 6.0294 6.1252 6.2226 6.3215 6.4220 6.5240 6.6277	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
18000 18100 18200 18300 18400 18500 18600 18600 18900	18051 18152 18252 18353 18453 18455 18655 18755 18856 18956	9.7512 9.7509 9.7506 9.7503 9.7500 9.7496 9.7493 9.7490 9.7487 9.7484	1.1767 + 0 1.1583 1.1401 1.1223 1.1047 1.0873 1.0703 1.0535 1.0370 1.0207	6377.7 6377.9 6378.1 6378.3 6378.5 6378.7 6379.1 6379.1 6379.3 6379.5	2.5092 +24 2.4700 2.4313 2.3933 2.3558 2.3190 2.2827 2.2470 2.2118 2.1772	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	5.9104 + 8 5.8179 5.7269 5.6373 5.5491 5.4623 5.3769 5.2927 5.2099 5.1284	6.7331 - 7 6.8401 6.9488 7.0592 7.1714 7.2854 7.4012 7.5188 7.6383 7.7597	28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96%

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Alti	tude	Accel. due to gravity	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, m	H, m	g,msec ⁻²	ω, kg m ⁻² sec ⁻²	H _P , m	n, m ⁻³	⊽, m sec⁻¹	ν, sec ⁻¹	L, m	М
11000 11100 11200 11300 11400 11500 11600 11700 11800 11900	10981 11081 11180 11280 11380 11479 11579 11679 11778 11878	9.7728 9.7725 9.7722 9.7719 9.7716 9.7713 9.7710 9.7706 9.7703 9.7700	3.5651 + 0 3.5114 3.4566 3.4026 3.3494 3.2971 3.2456 3.1949 3.1450 3.0959	6367.2 6363.8 6364.0 6364.2 6364.4 6364.6 6365.0 6365.2 6365.2	7.5853 +24 7.4713 7.3548 7.2402 7.1273 7.0162 6.9068 6.7991 6.6932 6.5888	398.07 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	1.7872 + 9 1.7599 1.7324 1.7054 1.6788 1.6527 1.6269 1.6015 1.5766	2.2273 - 7 2.2613 2.2971 2.3335 2.3704 2.4060 2.4461 2.4848 2.5242 2.5641	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
12000 12100 12200 12300 12400 12500 12600 12700 12800 12900	11977 12077 12177 12276 12376 12475 12575 12675 12774 12874	9.7697 9.7694 9.7691 9.7685 9.7682 9.7679 9.7676 9.7673	3.0475 + 0 3.0000 2.9531 2.9070 2.8616 2.8169 2.7729 2.7729 2.7296 2.6870 2.6450	6365.6 6365.8 6366.2 6366.4 6366.6 6366.8 6367.0 6367.2	6.4861 +24 6.3850 6.2855 6.1876 6.0911 5.9962 5.9027 5.8108 5.7202 5.6311	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	1.5278 + 9 1.5040 1.4805 1.4575 1.4348 1.4124 1.3904 1.3467 1.3474	2.6047 - 7 2.6460 2.6879 2.7304 2.7737 2.8176 2.8622 2.9075 2.9535 3.0003	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
13000 13100 13200 13300 13400 13500 13600 13700 13800 13900	12973 13073 13173 13272 13372 13471 13571 13671 13770 13870	9.7667 9.7664 9.7660 9.7657 9.7654 9.7651 9.7648 9.7645 9.7642	2.6038 + 0 2.5631 2.5231 2.4837 2.4449 2.4068 2.3692 2.3322 2.2958 2.2600	6367.6 6367.8 6368.0 6368.2 6368.4 6368.6 6368.8 6369.0 6369.2 6369.4	5.5433 +24 5.4570 5.3719 5.2882 5.2058 5.1247 5.0449 4.9663 4.8889 4.8128	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	1.3057 + 9 1.2854 1.2654 1.2456 1.2262 1.2071 1.1883 1.1698 1.1516 1.1336	3.0477 - 7 3.0960 3.1450 3.1948 3.2453 3.2967 3.3489 3.4019 3.4557 3.5104	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
14000 14100 14200 14300 14500 14500 14600 14700 14800 14900	13969 14069 14168 14268 14367 14467 14567 14666 14766 14865	9.7636 9.7633 9.7630 9.7621 9.7621 9.7618 9.7614 9.7611 9.7608	2.2247 + 0 2.1900 2.1558 2.1221 2.0890 2.0564 2.0243 1.9927 1.9616 1.9310	6369.6 6369.8 6370.2 6370.4 6370.6 6371.0 6371.0 6371.2	4.7378 +24 4.6640 4.5914 4.5198 4.4494 4.3801 4.3119 4.2148 4.1787	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	1.1160 + 9 1.0986 1.0815 1.0046 1.0481 1.0317 1.0157 9.9985 + 8 9.8428 9.6895	3.5659 - 7 3.6223 3.6797 3.7379 3.7970 3.8571 3.9181 3.9801 4.0431 4.1070	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
15000 15100 15200 15300 15400 15500 15600 15700 15800 15900	14965 15064 15164 15263 15363 15462 15562 15661 15761 15860	9.7605 9.7602 9.7599 9.7596 9.7593 9.7597 9.7587 9.7584 9.7581 9.7578	1.9009 + 0 1.8713 1.8421 1.8133 1.7850 1.7572 1.7298 1.7028 1.6762 1.6501	6371.6 6371.8 6372.0 6372.2 6372.4 6372.6 6373.0 6373.0 6373.2 6373.2	4.0495 +24 3.9865 3.9244 3.8633 3.8031 3.7439 3.6856 3.6283 3.5718 3.5718	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	9.5386 + 8 9.3901 9.2439 9.1000 8.9583 8.8188 8.66815 8.5463 8.4133 8.2823	4.1720 - 7 4.2380 4.3050 4.3731 4.423 4.5125 4.5839 4.6564 4.7301 4.8049	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
16000 16100 16200 16300 16400 16500 16600 16700 16800 16900	15960 16059 16159 16258 16358 16457 16557 16656 16756 16855	9.7575 9.7572 9.7569 9.7565 9.7562 9.7559 9.7556 9.7553 9.7550 9.7547	1.62%3 + 0 1.5990 1.57%1 1.5%95 1.5253 1.5015 1.%781 1.%551 1.%32% 1.4101	6373.6 6373.8 6374.2 6374.4 6374.6 6374.6 6375.0 6375.2 6375.2	3.4614 +24 3.4075 3.3545 3.3023 3.2509 3.2003 3.1505 3.1014 3.0532 3.0056	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	8.1533 + 8 8.0264 7.9015 7.77785 7.6574 7.5382 7.4209 7.3054 7.1917	4.8808 - 7 4.9580 5.0364 5.1161 5.1969 5.2791 5.3626 5.4474 5.5335 5.6210	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
17000 17100 17200 17300 17400 17500 17600 17600 17800 17900	16955 17054 17154 17253 17352 17452 17551 17651 17750 17850	9.7544 9.7541 9.7538 9.7535 9.7532 9.7529 9.7526 9.7523 9.7523	1.3881 + 0 1.3664 1.3451 1.3241 1.3035 1.2832 1.2632 1.2435 1.22241 1.2050	6375.6 6375.8 6376.0 6376.2 6376.4 6376.6 6377.0 6377.0 6377.2	2.9589 +24 2.9128 2.8675 2.8229 2.7789 2.7357 2.6931 2.6512 2.6100 2.5694	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	6.9696 + 8 6.8611 6.7544 6.6492 6.5458 6.4439 6.3437 6.2450 6.1478 6.0521	5.7098 - 7 5.8001 5.8918 5.9849 6.0795 6.1756 6.2732 6.3724 6.4731	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
18000 18100 18200 18300 18400 18500 18600 18700 18800 18900	17949 18049 18148 18247 18347 18446 18546 18645 18745	9.7513 9.7510 9.7507 9.7504 9.7501 9.7498 9.7495 9.7492 9.7489	1.1862 + 0 1.1677 1.1495 1.1316 1.1140 1.07966 1.0795 1.0627 1.0461 1.0298	6377.6 6377.8 6378.0 6378.2 6378.4 6378.6 6379.0 6379.0 6379.2 6379.4	2.5294 +24 2.4901 2.4513 2.4132 2.3756 2.3387 2.3023 2.2665 2.2312 2.1965	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	5.9580 + 8 5.8653 5.7740 5.6842 5.5958 5.5088 5.4231 5.3387 5.2557 5.1739	6.6793 - 7 6.7849 6.8921 7.0010 7.1116 7.2240 7.3381 7.4541 7.5718 7.6915	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

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Alti	tude	Accel.	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
H, m	Z, m	gravity g,msec ⁻²	weight ω, kg m ⁻² sec ⁻²	height H _P , m	n, m ⁻³	⊽, m sec⁻¹	ν , sec ⁻¹	L, m	М
19000 19100 19200 19300 19400 19500 19600 19700 19800 19900	19057 19158 19258 19359 19459 19561 19661 19761 19862 19963	9.7481 9.7478 9.7475 9.7472 9.7469 9.7466 9.7463 9.7460 9.7456 9.7453	1.0047 + 0 9.8900 - 1 9.7349 9.5823 9.4321 9.2842 9.1387 8.9954 8.8544 8.7156	6379.7 6379.9 6380.1 6380.5 6380.7 6380.7 6380.7 6381.1 6381.3	2.1432 +24 2.1096 2.0766 2.0441 2.0122 1.9807 1.9497 1.9497 1.8892 1.8892	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	5.0482 + 8 4.9692 4.8915 4.8149 4.7396 4.665% 4.5925 4.5206 4.4499 4.3803	7.8831 - 7 8.0084 8.1356 8.2650 8.3963 8.5298 8.6653 8.8031 8.9430 9.0851	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
20000 20100 20200 20300 20400 20500 20600 20700 20800 20900	20063 20164 20264 20365 20466 20566 20667 20768 20868 20969	9.7450 9.7447 9.7444 9.7441 9.7435 9.7435 9.7432 9.7429 9.7426 9.7423	8.5790 - 1 8.4406 8.3046 8.1708 8.0392 7.9098 7.7825 7.6574 7.5343	6381.7 6384.9 6388.0 6391.2 6394.3 6397.5 6400.6 6403.7 6406.9 6410.0	1.8305 +24 1.8010 1.7721 1.77436 1.7155 1.6880 1.6609 1.6542 1.6080 1.5822	397.95 398.04 398.14 398.23 398.32 398.41 398.50 398.59 398.69	4.3117 + 8 4.2433 4.1760 4.1098 4.0447 3.9806 3.9176 3.8556 3.7946	9.2295 - 7 9.3805 9.5339 9.6897 9.8480 1.0009 - 6 1.0172 1.0338 1.0507	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
21000 21100 21200 21300 21400 21500 21600 21700 21800 21900	21070 21170 21271 21372 21472 21573 21674 21774 21875 21976	9.7420 9.7416 9.7413 9.7410 9.7407 9.7401 9.7401 9.7398 9.7395 9.7392	7.2941 - 1 7.1770 7.0619 6.9486 6.8372 6.7277 6.6199 6.5139 6.4097 6.3072	6413.2 6416.3 6419.5 6422.6 6425.8 6428.9 6432.1 6435.2 6438.4 6441.5	1.5568 +24 1.5319 1.5074 1.4832 1.4595 1.4362 1.4132 1.3906 1.3684 1.3466	398.87 398.96 399.05 399.14 399.24 399.33 399.42 399.51 399.60	3.6756 + 8 3.6175 3.5604 3.5602 3.4489 3.3946 3.3411 3.2884 3.2366 3.1857	1.0852 - 6 1.1029 1.1208 1.1390 1.1576 1.1764 1.1955 1.2149 1.2346	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
22000 22100 22200 22300 22400 22500 22600 22700 22800 22900	22076 22177 22278 22379 22479 22580 22681 22781 22882 22983	9.7389 9.7386 9.7383 9.7380 9.7376 9.7373 9.7370 9.7367 9.7364 9.7361	6.2063 ~ 1 6.1071 6.0096 5.9136 5.8192 5.7264 5.6351 5.5453 5.4570 5.3701	6444.7 6447.8 6451.0 6457.3 6467.3 6460.5 6466.8 6466.8 6469.9 6473.1	1.3251 +24 1.3039 1.2832 1.2627 1.2426 1.2228 1.2034 1.1842 1.1654 1.1469	399.78 399.88 399.97 400.06 400.15 400.24 400.33 400.42 400.51	3.1356 + 8 3.0863 3.0378 2.9900 2.9431 2.8969 2.8514 2.8067 2.7627 2.77194	1.2750 - 6 1.2957 1.3166 1.3380 1.3596 1.3816 1.4040 1.4267 1.4497	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
23000 23100 23200 23300 23400 23500 23600 23700 23800 23900	23084 23184 23285 23386 23486 23587 23688 23789 23889 23990	9.7358 9.7355 9.7352 9.7349 9.7346 9.7343 9.7340 9.7337 9.7333	5.28%6 - 1 5.2005 5.1178 5.0365 %.9565 %.8778 %.8003 %.72%2 %.6%93 %.5756	6476.2 6479.4 6482.5 6485.7 6488.8 6492.0 6495.1 6498.3 6501.4 6504.6	1.1286 +24 1.1107 1.0931 1.0758 1.0587 1.0419 1.0254 1.0092 9.9320 +23 9.7749	400.70 400.79 400.88 400.97 401.06 401.15 401.24 401.34 401.43	2.6769 + 8 2.6350 2.5937 2.5532 2.5132 2.1740 2.4353 2.3973 2.3599 2.3231	1.4969 - 6 1.5210 1.5456 1.5705 1.5705 1.6215 1.6476 1.6741 1.7010	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
24000 24100 24200 24300 24400 24500 24600 24700 24800 24900	24091 24192 24292 24393 24494 24595 24696 24796 24897 24998	9.7327 9.7324 9.7321 9.7318 9.7315 9.7312 9.7309 9.7306 9.7303 9.7300	4.5031 - 1 4.4317 4.3616 4.2926 4.2247 4.1579 4.0922 4.0276 3.9640 3.9014	6507.8 6510.9 6514.1 6517.2 6520.4 6523.5 6526.7 6529.8 6533.0 6536.2	9.6203 +23 9.4683 9.3187 9.1715 9.0268 8.88%3 8.7%%2 8.606% 8.4708 8.337%	401.61 401.70 401.79 401.88 401.97 402.06 402.15 402.25 402.34 402.43	2.2869 + 8 2.2512 2.2162 2.1817 2.1477 2.1143 2.0814 2.0491 2.0173 1.9859	1.7561 - 6 1.7843 1.8130 1.8421 1.8716 1.9016 1.9321 1.9630 1.9945 2.0264	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
25000 25100 25200 25300 25400 25500 25600 25700 25800 25900	25099 25200 25300 25401 25503 25704 25804 25905 26006	9.7297 9.7293 9.7290 9.7287 9.7284 9.7281 9.7278 9.7275 9.7272	3.8399 - 1 3.7793 3.7198 3.6612 3.6035 3.5868 3.4910 3.4361 3.3821 3.3821	6539.3 6542.5 6545.6 6548.8 6551.9 6555.1 6558.3 6561.4 6564.6	8.2061 +23 8.0770 7.9499 7.8249 7.7020 7.5810 7.4620 7.3469 7.2297	402.52 402.61 402.70 402.79 402.88 402.97 403.06 403.15 403.24 403.33	1.9551 + 8 1.9248 1.8949 1.8656 1.8367 1.8082 1.7802 1.7527 1.7256 1.6989	2.0588 - 6 2.0917 2.1251 2.1591 2.1935 2.2286 2.2284 2.3002 2.3369 2.3741	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
26000 26100 26200 26300 26400 26500 26700 26700 26800 26900	26107 26208 26308 26409 26510 26611 26712 26813 26913 27014	9.7266 9.7263 9.7260 9.7257 9.7254 9.7250 9.7247 9.7244 9.7241 9.7238	3.2767 - 1 3.2253 3.1747 3.1249 3.0759 3.0277 2.9803 2.9336 2.8877 2.8426	6570.9 6574.0 6577.2 6580.4 6583.5 6586.7 6589.8 6593.0 6596.2 6599.3	7.0048 +23 6.8950 6.7871 6.6808 6.5763 6.4735 6.3723 6.2727 6.1748 6.0784	403.52 403.52 403.61 403.70 403.79 403.88 403.97 404.06 404.15 404.24	1.6727 + 8 1.6468 1.6214 1.5708 1.5718 1.5775 1.5237 1.5002 1.4771 1.4584	2.4119 - 6 2.4503 2.4892 2.5288 2.5690 2.6098 2.6513 2.6933 2.7361 2.7795	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

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Altif	tude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, m	H, m	gravity g,msec ⁻²	ω, kg m ⁻² sec ⁻²	height H _e , m	n, m ⁻³	⊽, m sec⁻¹	ν , sec ⁻¹	L, m	M
19000 19100 19200 19300 19400 19500 19600 19700 19800	18943 19043 19142 19242 19341 19440 19540 19639 19739 19838	9.7483 9.7480 9.7477 9.7474 9.7461 9.7464 9.7461 9.7458 9.7455	1.0138 + 0 9.9798 - 1 9.8243 9.6712 9.5205 9.3722 9.2261 9.0824 8.9409 8.8016	6379.6 6379.8 6380.0 6380.4 6380.6 6380.6 6381.0 6381.2 6381.4	2.1624 +24 2.1287 2.0956 2.0631 2.0310 1.9994 1.9683 1.9377 1.9076	397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95 397.95	5.0935 + 8 5.0142 4.9363 4.8595 4.7839 4.7095 4.6363 4.5642 4.4932 4.4234	7.8130 - 7 7.9364 8.0618 8.1892 8.3185 8.4499 8.5834 8.7190 8.8567 8.9966	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
20000 20100 20200 20300 20400 20500 20600 20700 20800 20900	19937 20037 20136 20235 20335 20434 20533 20633 20732 20832	9.7452 9.7449 9.7446 9.7443 9.7443 9.7437 9.7431 9.7431 9.7428	8.6645 - 1 8.5280 8.3914 8.2570 8.1248 7.9948 7.8670 7.7412 7.6176 7.4959	6381.6 6382.9 6386.0 6389.1 6392.2 6395.4 6398.5 6401.6 6404.8 6407.9	1.8487 +24 1.8197 1.7906 1.7619 1.7338 1.7061 1.6789 1.6521 1.6257 1.5998	397.95 397.99 398.08 398.17 398.26 398.35 398.44 398.53 398.62 398.71	4.3546 + 8 4.2865 4.2187 4.1525 4.0871 4.0227 3.9594 3.8871 3.8359 3.7756	9.1387 - 7 9.2845 9.4354 9.5887 9.7444 9.9025 1.0063 - 6 1.0226 1.0392 1.0560	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
21000 21100 21200 21300 21400 21500 21600 21700 21800 21900	20931 21030 21130 21229 21328 21428 21527 21626 21725 21825	9.7422 9.7419 9.7416 9.7413 9.7409 9.7403 9.7400 9.7397 9.7394	7.3763 - 1 7.2586 7.1428 7.0290 6.9170 6.8069 6.6986 6.5920 6.4872 6.3841	6411.0 6414.1 6417.3 6420.4 6423.5 6426.7 6429.8 6432.9 6436.0 6439.2	1.5743 +24 1.5493 - 1.5246 1.5004 1.4765 1.4530 1.4300 1.4073 1.3849 1.3630	398.81 398.90 398.99 399.08 399.17 399.26 399.35 399.44 399.53	3.7163 + 8 3.6580 3.66006 3.55441 3.4885 3.8339 3.3801 3.3272 3.2751 3.2239	1.0731 - 6 1.0905 1.1081 1.1260 1.1442 1.1627 1.1815 1.2005 1.2199 1.2396	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
22000 22100 22200 22300 22400 22500 22600 22700 22800 22900	21924 22023 22123 22222 22321 22421 22520 22619 22719 22818	9.7391 9.7388 9.7385 9.7385 9.7379 9.7376 9.7373 9.7370 9.7367	6.2827 - 1 6.1829 6.0848 5.9883 5.8934 5.8000 5.7081 5.6177 5.5288 5.4414	6442.3 6445.4 6448.6 6451.7 6454.8 6457.9 6461.1 6464.2 6467.3 6470.5	1.3%1% +24 1.3201 1.2992 1.2786 1.258% 1.2385 1.2189 1.1997 1.1807 1.1621	399.71 399.81 399.90 399.99 400.08 400.17 400.26 400.35 400.44	3.1735 + 8 3.1240 3.0752 3.0272 2.9800 2.9335 2.8878 2.8828 2.7985 2.7550	1.2595 - 6 1.2798 1.3004 1.3213 1.3426 1.3641 1.3860 1.4083 1.4309 1.4538	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
23000 23100 23200 23300 23400 23500 23600 23700 23800 23900	22917 23016 23116 23215 23314 23413 23513 23612 23711 23810	9.7361 9.7358 9.7354 9.7351 9.7348 9.7345 9.7342 9.7339 9.7336	5.3554 - 1 5.2708 5.1875 5.1056 5.0251 4.9458 4.8679 4.77912 4.7157 4.6415	6473.6 6476.7 6479.9 6483.0 6486.1 6489.2 6492.4 6495.5 6498.6 6501.8	1.1437 +24 1.1257 1.1080 1.0905 1.0733 1.0564 1.0398 1.0235 1.0074 9.9155 +23	400.62 400.71 400.80 400.89 400.98 401.07 401.16 401.26 401.35	2.7121 + 8 2.6700 2.6285 2.5876 2.5475 2.5079 2.4690 2.4308 2.3931 2.3560	1.4772 - 6 1.5008 1.5249 1.51493 1.5740 1.5992 1.6248 1.6507 1.6771	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
24000 24100 24200 24300 24400 24500 24600 24700 24800 24900	23910 24009 24108 24207 24307 24406 24505 24604 24704 24803	9.7330 9.7327 9.7324 9.7321 9.7318 9.7315 9.7312 9.7309 9.7306 9.7303	4.5685 - 1 4.4966 4.3564 4.2880 4.2207 4.1545 4.0893 4.0252 3.9622	6504.9 6508.0 6511.2 6514.3 6517.4 6520.6 6523.7 6526.8 6530.0 6533.1	9.7598 +23 9.6066 9.4559 9.3076 9.1618 9.0182 8.8770 8.7381 8.6014 8.4670	401.53 401.62 401.71 401.89 401.98 402.07 402.16 402.25 402.34	2.3196 + 8 2.2837 2.2483 2.2136 2.1794 2.1457 2.1126 2.0800 2.0479 2.0164	1.7310 - 6 1.7587 1.7867 1.8151 1.8440 1.8734 1.9032 1.9334 1.9642	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
25000 25100 25200 25300 25400 25500 25600 25700 25800 25900	24902 25001 25100 25200 25299 25398 25497 25597 25696 25795	9.7300 9.7297 9.7293 9.7290 9.7287 9.7284 9.7281 9.7278 9.7275	3.9001 - 1 3.8391 3.7790 3.7200 3.6618 3.6046 3.5483 3.4930 3.4385 3.3849	6536.2 6539.4 6542.5 6545.6 6548.7 6551.9 6555.0 6558.1 6561.3 6564.4	8.3346 +23 8.2045 8.0764 7.9503 7.8263 7.7043 7.5842 7.4661 7.3499 7.2355	402.43 402.52 402.61 402.70 402.88 402.97 403.06 403.15 403.24	1.9853 + 8 1.9547 1.9246 1.8950 1.8659 1.8372 1.8090 1.7812 1.7539	2.0270 - 6 2.0592 2.0919 2.1250 2.1587 2.1929 2.2276 2.2628 2.2986 2.3350	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
26000 26100 26200 26300 26400 26500 26600 26700 26800 26900	25894 25993 26092 26192 26291 26390 26489 26588 26687 26787	9.7269 9.7266 9.7263 9.7260 9.7257 9.7254 9.7251 9.7248 9.7245 9.7242	3.3321 - 1 3.2802 3.2291 3.1789 3.1294 3.0808 3.0329 2.9858 2.9394 2.8938	6567.5 6570.7 6573.8 6576.9 6580.1 6583.2 6586.3 6589.5 6592.6 6595.7	7.1230 +23 7.0122 6.9033 6.7961 6.6905 6.5867 6.4846 6.3840 6.2851 6.1878	403.33 403.42 403.51 403.60 403.69 403.78 403.87 403.96 404.05	1.7005 + 8 1.6744 1.6488 1.6235 1.5787 1.5742 1.5501 1.5264 1.5031	2.3719 - 6 2.4093 2.4473 2.4860 2.5252 2.5252 2.6054 2.6054 2.6464 2.6880 2.7303	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

A 14:4	tude	Accel.	Specific	Pressure	Number	Particle	Collision	Mean free	Molecular
Aiiii		due to	weight	scale	density	speed	frequency	path	weight
H, m	Z, m	gravity g,msec ⁻²	ω, kg m ⁻² sec ⁻²	height H _P , m	n, m ^{-š}	⊽, m sec⁻¹	ν , sec ⁻¹	L, m	M
27000 27100 27200 27300 27400 27500 27600 27700 27800	27115 27216 27317 27418 27519 27620 27720 27821 27922	9.7235 9.7232 9.7229 9.7226 9.7223 9.7220 9.7217 9.7211	2.7981 - 1 2.7544 2.7514 2.6690 2.6274 2.5864 2.5461 2.5064 2.4673	6602.5 6605.6 6608.8 6612.0 6615.1 6618.3 6621.5 6624.6 6627.8	5.9836 +23 5.8902 5.7984 5.7081 5.6192 5.5317 5.4456 5.3609 5.2775	404.33 404.42 404.51 404.60 404.69 404.87 404.87 404.96	1.4320 + 8 1.4100 1.3883 1.3670 1.3460 1.3253 1.3050 1.2850	2.8235 - 6 2.8682 2.9137 2.9598 3.0066 3.0542 3.1024 3.1515	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
27900 28000 28100 28200 28300 28400 28500 28700 28700 28800 28900	28023 28124 28225 28326 28427 28527 28628 28729 28830 28931 29032	9.7207 9.7204 9.7201 9.7198 9.7195 9.7192 9.7189 9.7186 9.7183 9.7180 9.7177	2.4289 2.3911 - 1 2.3539 2.3173 2.2813 2.2458 2.2109 2.1766 2.1428 2.1096 2.0769	6630.9 6634.1 6637.3 6640.4 6643.6 6646.8 6649.9 6653.1 6656.3 6659.4 6662.6	5.1955 5.1148 +23 5.0354 4.9572 4.8803 4.8047 4.7302 4.6569 4.5848 4.5138 4.4440	405.14 405.23 405.32 405.50 405.59 405.68 405.77 405.86 405.95 406.04	1.2459 1.2268 + 8 1.2080 1.1896 1.1714 1.1535 1.1358 1.1185 1.1014 1.0046 1.0681	3.2518 3.3031 - 6 3.3552 3.4081 3.4618 3.5163 3.5717 3.6279 3.6849 3.7429 3.8017	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
29000 29100 29200 29300 29400 29500 29600 29700 29800 29900	29133 29234 29335 29436 29537 29638 29738 29738 29839 29940 30041	9.7174 9.7171 9.7167 9.7164 9.7161 9.7158 9.7155 9.7152 9.7149 9.7146	2.0447 - 1 2.0130 1.9819 1.9512 1.9210 1.8913 1.8621 1.8333 1.8050	6665.7 6668.9 6672.1 6675.2 6678.4 6684.7 6687.9 6691.1 6694.2	4.3752 +23 4.3076 4.2411 4.1755 4.1111 4.0476 3.9852 3.9238 3.8633 3.8038	406.13 406.22 406.31 406.40 406.58 406.67 406.76 406.85	1.0518 + 8 1.0357 1.0200 1.0044 9.8914 + 7 9.7410 9.5928 9.4470 9.3035 9.1622	3.861% - 6 3.9220 3.9836 4.0%61 4.1095 4.17%0 4.2393 4.3057 4.3731 4.4415	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
30000 30100 30200 30300 30400 30500 30600 30700 30800	30142 30243 30344 30445 30546 30647 30748 30849 30950 31051	9.7143 9.7140 9.7137 9.7134 9.7131 9.7128 9.7124 9.7121 9.7118	1.7497 - 1 1.7227 1.6962 1.6700 1.6443 1.6190 1.5941 1.5696 1.5454	6697.4 6700.6 6703.7 6706.9 6710.1 6713.2 6716.4 6719.6 6722.7 6725.9	3.7452 +23 3.6876 3.6308 3.5750 3.5200 3.4660 3.4127 3.3603 3.3088 3.2580	407.03 407.12 407.21 407.30 407.39 407.48 407.57 407.66 407.75	9.0231 + 7 8.8862 8.7514 8.6187 8.4881 8.3595 8.2330 8.1084 7.9857 7.8649	4.5110 - 6 4.5815 4.6531 4.7258 4.7996 4.8744 4.9505 5.0277 5.1060 5.1855	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
31000 31100 31200 31300 31400 31500 31600 31700 31800 31900	31152 31253 31354 31455 31556 31657 31758 31859 31960 32061	9.7112 9.7109 9.7106 9.7103 9.7100 9.7097 9.7094 9.7091 9.7088 9.7085	1.4983 - 1 1.4753 1.4527 1.4304 1.4084 1.3869 1.3656 1.33447 1.3241	6729.1 6732.2 6735.4 6738.6 6741.8 6744.9 6748.1 6751.3 6754.4 6757.6	3.2081 +23 3.1589 3.1105 3.0629 3.0160 2.9699 2.9245 2.8798 2.8358 2.7925	407.93 408.02 408.11 408.20 408.29 408.38 408.47 408.56 408.65 408.73	7.7461 + 7 7.6290 7.5138 7.4004 7.2888 7.1788 7.0706 6.9641 6.8592 6.7559	5.2663 - 6 5.3482 5.4314 5.5159 5.6016 5.6886 5.7770 5.8666 5.9576 6.0500	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
32000 32200 32400 32600 32800 33000 33200 33400 33600 33800	32162 32364 32566 32768 32970 33172 33374 33576 33779 33981	9.7082 9.7075 9.7069 9.7063 9.7057 9.7051 9.7045 9.7039 9.7032 9.7032	1.2839 - 1 1.2430 1.2035 1.1654 1.1286 1.0930 1.0586 1.0254 9.9326 - 2 9.6224	6760-8 6777-8 6774-7 6811-7 6828-7 6845-7 6862-7 6879-7 6879-7 6913-7	2.7499 +23 2.6625 2.5781 2.4966 2.4178 2.3417 2.2682 2.1971 2.1285 2.0621	408.82 409.32 409.82 410.32 410.82 411.32 411.82 412.31 412.81 413.31	6.6542 + 7 6.4507 6.2538 6.0634 5.8793 5.7011 5.5288 5.3621 5.2008 5.0447	6.1438 - 6 6.3455 6.5532 6.7672 6.9876 7.2147 7.4486 7.6895 7.9375 8.1929	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
34000 34200 34400 34600 35000 35200 35200 35600 35800	34183 34385 34587 34789 34789 35194 35396 35598 35801 36003	9.7020 9.7014 9.7008 9.7002 9.6996 9.6989 9.6983 9.6977 9.6971	9.3225 - 2 9.0327 8.7525 8.4816 8.2198 7.9666 7.7218 7.4850 7.2561 7.0346	6930.7 6947.7 6964.8 6981.8 6998.8 7015.8 7032.8 7049.8 7066.9 7083.9	1.9980 +23 1.9360 1.8760 1.8181 1.7621 1.7079 1.6555 1.6049 1.5559 1.5085	413.80 414.29 414.79 415.28 415.77 416.27 416.27 417.76 417.25 417.74 418.23	4.8936 + 7 4.7478 4.6059 8.4690 8.3368 4.2081 4.0839 3.9636 3.8471 3.7343	8.4559 - 6 8.7267 9.0055 9.2925 9.5879 9.8920 1.0205 - 5 1.0527 1.0859 1.1200	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
36000 36200 36400 36600 37000 37200 37400 37600 37800	36205 36407 36610 36812 37014 37217 37419 37621 37824 38026	9.6959 9.6953 9.6946 9.6934 9.6928 9.6922 9.6910 9.6904	6.8204 - 2 6.6132 6.4128 6.2189 6.0313 5.8497 5.6740 5.5040 5.3394 5.1801	7100.9 7117.9 7135.0 7152.0 7169.1 7186.1 7203.1 7220.2 7237.2 7254.3	1.4627 +23 1.4183 1.3754 1.3339 1.2937 1.2549 1.2173 1.1809 1.1456 1.1115	418.72 419.21 419.69 420.18 420.67 421.15 421.64 422.12 422.61 423.09	3.6251 + 7 3.5193 3.4168 3.3175 3.2214 3.1282 3.0379 2.9505 2.8657 2.7836	1.1551 - 5 1.1912 1.2283 1.2666 1.3059 1.3463 1.3879 1.4307 1.4747	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

Δltit	tude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
Z, m	H, m	gravity g,msec ⁻²	weight ω, kg m ⁻² sec ⁻²	height H _P , m	n, m ⁻³	V, m sec⁻¹	ν , sec ⁻¹	L, m	M
27000 27100 27200 27300 27400 27500 27600 27700 27800 27900	26886 26985 27084 27183 27282 27382 27481 27580 27679 27778	9.7239 9.7236 9.7233 9.7229 9.7226 9.7223 9.7220 9.7217 9.7214 9.7211	2.8489 - 1 2.8048 2.7613 2.7185 2.6764 2.6350 2.5943 2.5542 2.5147 2.4758	6598.9 6602.0 6605.1 6608.3 6611.4 6614.5 6617.7 6620.8 6624.0 6627.1	6.0920 +23 5.9977 5.9050 5.8137 5.7239 5.6355 5.5485 5.4629 5.3786 5.2957	404.23 404.32 404.41 404.50 404.58 404.67 404.76 404.95 404.95	1.4576 + 8 1.4354 1.4135 1.3919 1.3707 1.3499 1.3293 1.3091 1.2892	2.7733 - 6 2.8168 2.8611 2.9060 2.9516 2.9979 3.0449 3.0926 3.1411 3.1903	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
28000 28100 28200 28300 28400 28500 28600 28700 28600 28700	27877 27976 28075 28175 28275 28373 28472 28571 28670 28769	9.7208 9.7205 9.7202 9.7199 9.7196 9.7193 9.7190 9.7187 9.7184 9.7181	2.4376 - 1 2.4000 2.3630 2.3266 2.2907 2.2554 2.2207 2.1865 2.1529 2.1198	6630.2 6633.4 6636.5 6639.6 6642.8 6645.9 6649.0 6652.2 6655.3 6658.4	5.21%1 +23 5.1338 5.05%8 4.9770 4.9005 4.8251 4.7510 4.6780 4.6062 4.5356	405.12 405.21 405.30 405.39 405.48 405.66 405.75 405.84	1.2503 + 8 1.2313 1.2126 1.1942 1.1761 1.1583 1.1408 1.1235 1.1065 1.0898	3.2402 ~ 6 3.2909 3.3423 3.345 3.4476 3.5014 3.5560 3.6115 3.6678 3.7249	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
29000 29100 29200 29300 29400 29500 29600 29600 29800 29900	28868 28967 29066 29166 29265 29364 29463 29562 29661 29760	9.7178 9.7175 9.7172 9.7169 9.7166 9.7162 9.7159 9.7156 9.7153 9.7150	2.0872 - 1 2.0552 2.0236 1.9926 1.9620 1.9319 1.9023 1.8732 1.8845	6661.6 6664.7 6667.8 6671.0 6674.1 6677.3 6680.4 6683.5 6689.8	4.4660 +23 4.3976 4.3302 4.2639 4.1986 4.1344 4.0711 4.0089 3.9477 3.8874	406.01 406.10 406.28 406.28 406.37 406.46 406.55 406.64 406.73	1.0733 + 8 1.0571 1.0411 1.0254 1.0099 9.9466 + 7 9.7967 9.6490 9.5037 9.3606	3.7829 - 6 3.8418 3.9016 3.9623 4.0239 4.0864 4.11499 4.2143 4.2797 4.3460	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
30000 30100 30200 30300 30400 30500 30600 30700 30800 30900	29859 29958 30057 30156 30255 30354 30453 30552 30651 30751	9.7147 9.7144 9.7141 9.7138 9.7135 9.7132 9.7129 9.7126 9.7123 9.7120	1.7885 - 1 1.7612 1.7342 1.7078 1.6817 1.6560 1.6308 1.6059 1.5814	6692-9 6696-1 6699-2 6702-3 6705-5 6708-6 6711-8 6718-0 6721-2	3.8280 +23 3.7696 3.7121 3.6555 3.5998 3.5450 3.4911 3.4380 3.3857 3.3342	406.91 406.99 407.08 407.17 407.26 407.35 407.44 407.53 407.62 407.71	9.2197 + 7 9.0811 8.9445 8.8101 8.6778 8.5475 8.4192 8.2929 8.1686 8.0462	4.4134 - 6 4.4818 4.5512 4.6216 4.6932 4.7657 4.8394 4.9901 5.0671	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
31000 31100 31200 31300 31400 31500 31600 31700 31800 31900	30850 30949 31048 31147 31246 31345 31444 31543 31642 31741	9.7117 9.7114 9.7111 9.7108 9.7105 9.7102 9.7099 9.7096 9.7093 9.7089	1.5336 - 1 1.5103 1.4873 1.4647 1.4647 1.424 1.4205 1.3990 1.3777 1.3568 1.3363	6724.3 6727.4 6730.6 6733.7 6736.9 6740.0 6743.1 6746.3 6749.4 6752.6	3.2835 +23 3.2337 3.1846 3.1363 3.0887 3.0419 2.9958 2.9958 2.9058 2.8618	407.79 407.88 407.97 408.06 408.15 408.24 408.33 408.50 408.50	7.9256 + 7 7.8070 7.6901 7.5751 7.4619 7.3503 7.2405 7.1324 7.0260 6.9212	5.1453 - 6 5.2246 5.3051 5.3869 5.4698 5.5540 5.6394 5.7262 5.8142 5.9035	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
32000 32200 32400 32600 32800 33000 33200 33400 33600 33800	31840 32038 32236 32434 32632 32830 33027 33225 33423 33621	9.7086 9.7080 9.7074 9.7068 9.7062 9.7056 9.7050 9.7044 9.7038 9.7032	1.3160 - 1 1.2761 1.2359 1.1970 1.1595 1.1232 1.0882 1.0543 1.0216 9.8992 - 2	6755.7 6764.0 6780.8 6797.6 6814.4 6831.2 6846.1 6864.9 6881.7 6898.5	2.8185 +23 2.77332 2.6472 2.5642 2.4839 2.4064 2.3314 2.2590 2.1890 2.1213	408.68 408.92 409.41 409.91 410.40 410.90 411.39 411.88 412.37 412.86	6.8180 + 7 6.6153 6.4151 6.2213 6.0339 5.8526 5.6771 5.5073 5.3430 5.1840	5.9942 - 6 6.1814 6.3821 6.5887 6.8016 7.0208 7.2464 7.4788 7.7180 7.9642	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
34000 34200 34400 34600 35800 35200 35200 35400 35800	33819 34017 34215 34413 34610 34808 35006 35204 35402 35599	9.7026 9.7020 9.7014 9.7007 9.7001 9.6995 9.6989 9.6983 9.6977	9.5933 - 2 9.2975 9.0116 8.7351 8.4677 8.2091 7.9590 7.7170 7.4830 7.2567	6915.4 6932.2 6949.0 6965.8 6982.7 6999.5 7016.3 7033.2 7050.0 7066.8	2.0559 +23 1.9926 1.9315 1.8723 1.8151 1.7598 1.7063 1.6545 1.6044 1.5560	413.35 413.84 414.33 414.82 415.31 415.79 416.28 416.77 417.25 417.74	5.0300 + 7 4.8810 4.7368 4.5971 4.4619 4.3310 4.2042 4.0815 3.9626 3.8474	8.2177 - 6 8.4786 8.7471 9.0234 9.3078 9.6004 9.9015 1.0211 - 5 1.0530 1.0858	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
36000 36200 36400 36600 37000 37200 37400 37600 37800	35797 35995 36193 36390 36588 36786 36984 37181 37379 37577	9.6965 9.6959 9.6953 9.6947 9.6941 9.6935 9.6929 9.6922 9.6916 9.6910	7.0376 - 2 6.8257 6.6207 6.4222 6.2302 6.0443 5.8644 5.6903 5.5217 5.3585	7083.7 7100.5 7117.3 7134.2 7151.0 7167.8 7184.7 7201.5 7218.4 7235.2	1.5091 +23 1.4638 1.4199 1.3774 1.3363 1.2965 1.2580 1.2207 1.1847	418.22 418.70 419.19 419.67 420.63 421.11 421.59 422.07 422.55	3.7358 + 7 3.6277 3.5230 3.4216 3.3233 3.2281 3.1357 3.0463 2.9596 2.8755	1.1195 - 5 1.1542 1.1898 1.2265 1.2643 1.3031 1.3429 1.3840 1.4261 1.4695	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

Δltii	tude	Accel.	Specific	Pressure	Number	Particle	Collision	Mean free	Molecular
		due to gravity	weight	scale height	density	speed	frequency	path	weight
H, m	Z, m	g,msec ⁻²	ω, kg m ⁻² sec ⁻²	H _P , m	n, m ⁻³	∇, m sec⁻'	ν, sec ⁻¹	L, m	M
38000 38200 38400 38600 38800 39000	38229 38431 38633 38836 39038 39241	9.6897 9.6891 9.6885 9.6879 9.6873 9.6867	5.0259 - 2 4.8767 4.7322 4.5923 4.4568 4.3256	7271.3 7288.4 7305.4 7322.5 7339.5 7356.6	1.0785 +23 1.0465 1.0156 9.8563 +22 9.5662 9.2852	423.58 424.06 424.54 425.02 425.51 425.99	2.7040 + 7 2.6269 2.5521 2.4796 2.4093 2.3412	1.5665 ~ 5 1.6143 1.6635 1.7141 1.7661 1.8195	28.964 28.964 28.964 28.964 28.964 28.964 28.964
39200 39400 39600 39800	39443 39646 39848 40051	9.6861 9.6854 9.6848 9.6842	%.1986 %.0755 3.9564 3.8%10	7373.7 7390.7 7407.8 7424.8	9.0131 8.7495 8.4942 8.2469	426.47 426.95 427.43 427.90	2.2751 2.2111 2.1490 2.0888	1.8745 1.9309 1.9890 2.0486	28.964 28.964 28.964 28.964
#0000 #0200 #0#00 #0600 #1000 #1200 #1400 #1600	40253 40456 40658 40861 41064 41266 41469 41671 41874 42077	9.6836 9.6830 9.6824 9.6818 9.6811 9.6805 9.6799 9.6793 9.6787 9.6781	3.7291 - 2 3.6208 3.5159 3.4142 3.3157 3.2202 3.1277 3.0380 2.9511 2.8668	7441.9 7459.0 7476.1 7473.1 7510.2 7527.3 7544.4 7561.5 7578.6 7595.7	8.0074 +22 7.7753 7.57525 7.3525 7.1213 6.9167 6.7184 6.5262 6.3399 6.1593	428.38 428.86 429.34 429.81 430.29 430.76 431.24 431.71 432.19	2.0303 + 7 1.9737 1.9187 1.8654 1.8137 1.7636 1.7149 1.6677 1.6218	2.1099 - 5 2.1729 2.2376 2.3041 2.3724 2.4426 2.5147 2.5887 2.6648 2.7429	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
#2000 #2200 #2400 #2600 #3000 #3200 #3400 #3600	42279 42482 42685 42887 43090 43293 43496 43698 43698 44104	9.6775 9.6769 9.6762 9.6756 9.6750 9.6744 9.6738 9.6732 9.6726	2.7852 - 2 2.7060 2.6293 2.5548 2.4827 2.4127 2.3449 2.2791 2.2152 2.1533	7612.7 7629.8 7646.9 7664.0 7681.1 7698.2 7715.3 7732.4 7749.6 7766.7	5.9842 +22 5.8145 5.6499 5.4904 5.3356 5.1856 5.0401 4.8990 4.7621 4.6293	433.13 433.61 434.08 434.55 435.02 435.49 435.49 436.43 436.90	1.5342 + 7 1.4923 1.4516 1.4122 1.3739 1.3367 1.3006 1.2655 1.2315	2.8232 - 5 2.9056 2.9902 3.0771 3.1664 3.2580 3.3521 3.4486 3.5478 3.6495	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
##000 ##200 ###00 ##600 #5000 #5200 #5200 #5400 #5600	\$4307 \$4510 \$4712 \$5915 \$5118 \$552\$ \$5727 \$5930 \$6132	9.6713 9.6707 9.6701 9.6695 9.6689 9.6683 9.6677 9.6671 9.6664 9.6658	2.0933 - 2 2.0350 1.9785 1.9237 1.8705 1.8189 1.7688 1.7202 1.6730	7783.8 7800.9 7818.0 7835.1 7852.3 7869.4 7886.5 7903.6 7920.8 7937.9	4.5005 +22 4.3755 4.2543 4.1366 4.0225 3.9117 3.8043 3.6999 3.5987 3.5004	437.83 438.30 438.77 439.23 439.70 440.63 441.09 441.56 442.02	1.1663 + 7 1.1351 1.1049 1.0755 1.0469 1.0191 9.9219 + 6 9.6600 9.4055 9.1583	3.75%0 - 5 3.8612 3.9712 4.08%2 4.2000 4.3190 4.%%10 4.5662 4.69%7 4.8265	28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96%
#6000 #6200 #6#00 #6600 #7000 #7200 #7200 #7400 #7600	46335 46538 46741 46944 47147 47350 47553 47756 47959 48162	9.6652 9.6640 9.6634 9.6628 9.6621 9.6615 9.6609 9.6603 9.6597	1.5828 - 2 1.5396 1.4977 1.4571 1.4176 1.3793 1.3448 1.3112 1.2784	7955.0 7972.2 7989.3 8006.5 8023.6 8040.7 8041.3 8041.8 8042.3	3.4050 +22 3.3124 3.2225 3.1353 3.0505 2.9683 2.8943 2.8221 2.7517 2.6831	442.48 442.95 443.41 443.87 444.79 444.79 444.79 444.79	8.9180 + 6 8.6846 8.4577 8.2372 8.0229 7.8146 7.6198 7.4298 7.2446 7.0640	4.9617 - 5 5.1004 5.2426 5.3886 5.5383 5.6918 5.8373 5.9866 6.1396	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
48000 48200 48400 48600 49000 49200 49200 49400 49600	48365 48568 48771 48974 49178 49381 49584 49787 49790 50193	9.6591 9.6585 9.6579 9.6572 9.6566 9.6560 9.6554 9.6548 9.6542	1.2153 - 2 1.1850 1.1554 1.1265 1.0983 1.0709 1.0441 1.0180 9.9259 - 3 9.6778	8043.3 8043.8 8044.3 8045.3 8045.8 8045.8 8046.9 8046.9	2.6163 +22 2.5510 2.4874 2.4254 2.3650 2.3060 2.2485 2.1925 2.1925 2.0845	\$48.79 848.79 848.79 848.79 848.79 888.79 888.79 888.79	6.8879 + 6 6.7162 6.5488 6.3855 6.2263 6.0711 5.9197 5.7722 5.6283 5.4880	6.4576 - 5 6.6227 6.7920 6.9656 7.1437 7.3264 7.5137 7.7058 7.9028 8.1048	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
50000 50500 51000 51500 52000 52500 53500 53500 54000 54500	50396 50904 51413 51921 52429 52937 53446 53954 54463 54971	9.6530 9.6514 9.6499 9.6484 9.6468 9.6453 9.6422 9.6407 9.6392	9.4359 - 3 8.8574 8.3143 7.8046 7.3261 6.9016 6.5003 6.1209 5.7624 5.4237	8048.4 8049.7 8050.9 8052.2 8053.5 8025.0 7996.5 7968.0 7939.5 7911.0	2.0326 +22 1.9082 1.7915 1.6819 1.5791 1.4878 1.4015 1.3199 1.2428 1.1700	444.79 444.79 444.79 444.79 444.79 443.97 443.14 442.32 441.49	5.3512 + 6 5.0239 4.7166 4.4281 4.1573 3.9098 3.6762 3.4557 3.2478 3.0516	8.3120 - 5 8.8535 9.8303 1.0045 - 4 1.0649 1.1355 1.2054 1.2880 1.3594 1.4440	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
55000 55500 56000 56500 57000 57500 58500 58500 59000 59500	55480 55989 56498 57007 57516 58025 58534 59043 59553 60062	9.6377 9.6361 9.6386 9.6315 9.6315 9.6300 9.6285 9.6270 9.6254 9.6239	5.1037 - 3 4.8015 4.5161 4.2467 3.9925 3.7525 3.5262 3.3127 3.1114 2.9216	7882.5 7853.9 7825.4 7796.8 7768.3 7739.7 7711.1 7682.5 7653.9 7625.3	1.1011 +22 1.0361 9.7465 +21 9.1666 8.6191 8.1025 7.6149 7.1550 6.7213 6.3123	439.83 439.00 438.17 437.33 436.50 435.66 434.82 433.98 432.29	2.8666 + 6 2.6922 2.5278 2.3728 2.2269 2.0894 1.9599 1.8379 1.7232 1.6151	1.5343 - 4 1.6306 1.7334 1.8431 1.9601 2.0851 2.2186 2.3612 2.5136 2.6765	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

Altii	tude	Accel.	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, m	H, m	gravity g,msec ⁻²	ω, kg m ⁻² sec ⁻²	height H _P , m	n, m ⁻³	∇, m sec ⁻¹	ν , sec ⁻¹	L, m	M
38000 38200 38400 38600 38800 39000 39200 39400 39600	37774 37972 38169 38367 38565 38762 38960 39157 39355 39552	9.6904 9.6898 9.6892 9.6886 9.6874 9.6868 9.6862 9.6856 9.6850	5.2004 - 2 5.0474 4.8992 4.7557 4.6167 4.4821 4.3517 4.2254 4.1030 3.9844	7252-1 7268-9 7285-8 7302-6 7319-5 7336-3 7353-2 7370-0 7386-9 7403-7	1.1159 +23 1.0831 1.0514 1.0206 9.9087 +22 9.6204 9.3411 9.0705 8.8883 8.5543	423.03 423.51 423.59 424.46 424.94 425.89 426.36 426.36 427.31	2.7941 + 7 2.7151 2.6385 2.5643 2.4923 2.4225 2.3547 2.2891 2.2254 2.1636	1.5140 - 5 1.5598 1.6069 1.6553 1.7050 1.7561 1.8086 1.8626 1.9180	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
40000 40200 40400 40600 40800 41000 41200 41400 41600 41800	39750 39947 40145 40342 40540 40737 40935 41132 41329 41527	9.6844 9.6838 9.6832 9.6826 9.6819 9.6813 9.6807 9.6801 9.6795 9.6789	3.8696 - 2 3.7582 3.6504 3.5458 3.4445 3.3463 3.2511 3.1588 3.0693 2.9825	7420.6 7437.4 7454.3 7471.1 7488.0 7504.9 7521.7 7538.6 7555.4 7572.3	8.3082 +22 8.0697 7.8386 7.6145 7.3974 7.1869 6.9829 6.7851 6.5933 6.4073	427.78 428.26 428.73 429.20 429.67 430.61 431.08 431.55 432.01	2.1037 + 7 2.0456 1.9892 1.9344 1.8813 1.8298 1.7798 1.7313 1.6841	2.0335 - 5 2.0936 2.1553 2.2187 2.2839 2.3508 2.4194 2.4900 2.5624 2.6368	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
42000 42200 42400 42600 42800 43000 43000 43400 43600 43800	41724 41922 42119 42316 42514 42711 42908 43106 43303 43500	9.6783 9.6777 9.6771 9.6765 9.6753 9.6747 9.6741 9.6735 9.6729	2.8984 - 2 2.8169 2.7378 2.6611 2.5867 2.5145 2.4445 2.3766 2.3107 2.2468	7589.2 7606.0 7622.9 7639.8 7656.7 7673.5 7690.4 7707.3 7724.1	6.2270 +22 6.0522 5.8826 5.7181 5.5586 5.4039 5.2538 5.1082 4.9669 4.8298	432.48 432.95 433.41 433.88 434.81 435.27 435.74 436.20 436.66	1.5940 + 7 1.5509 1.5091 1.4685 1.4291 1.3908 1.3536 1.3175 1.2824	2.7131 - 5 2.7915 2.8720 2.9546 3.0394 3.1264 3.2157 3.3074 3.4014 3.4980	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
##000 ##200 ###00 ##600 ##800 #5000 #5200 #5400 #5800	43697 43895 44092 44289 44886 44684 44881 45078 45275 45472	9.6723 9.6717 9.6711 9.6705 9.6698 9.6692 9.6680 9.6674 9.6668	2.1848 - 2 2.1247 2.0663 2.0096 1.9546 1.9012 1.8494 1.7992 1.7503	7757.9 7774.8 7791.7 7808.5 7825.4 7842.3 7859.2 7876.1 7892.9 7909.8	4.6968 +22 4.5678 4.4425 4.3210 4.2030 4.0885 3.9773 3.8694 3.7647 3.6630	437.13 437.59 438.05 438.97 438.97 439.43 439.89 440.35 440.80	1.2152 + 7 1.1831 1.1519 1.1519 1.1215 1.0921 1.0634 1.0356 1.0085 9.8225 + 6 9.5671	3.5970 - 5 3.6987 3.8029 3.9099 4.0197 4.1322 4.2477 4.3662 4.4877 4.6123	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
46000 46200 46400 46600 47000 47000 47400 47400 47800	45669 45867 46064 46261 46458 46655 46852 47049 47246 47443	9.6662 9.6656 9.6650 9.6644 9.6632 9.6632 9.6620 9.6620 9.6614 9.6608	1.6569 - 2 1.6123 1.5689 1.5268 1.4858 1.4461 1.4075 1.33707	7926.7 7943.6 7960.5 7977.4 7994.3 8011.2 8028.1 8040.9 8041.4 804.9	5.5642 +22 3.4683 3.3752 3.2848 3.1970 3.1117 3.0289 2.9499 2.8774 2.8068	441.72 442.17 442.63 443.54 444.00 444.79 444.79	9.3188 + 6 9.0775 8.8429 8.6149 8.3932 8.1777 7.9681 7.7663 7.5755 7.3894	4.7401 - 5 4.8711 5.0055 5.11433 5.2845 5.4294 5.5779 5.7272 5.8714 6.0193	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
48000 48200 48400 48600 49000 49200 49400 49600	47640 47837 48034 48231 48428 48425 48625 48622 49019 49216	9.6602 9.6596 9.6590 9.6584 9.6578 9.6572 9.6566 9.6560 9.6554	1.2720 - 2 1.2406 1.2101 1.1803 1.1512 1.1229 1.0953 1.0683 1.0420	8042.4 8042.9 8043.4 8044.9 8044.4 8044.9 8045.9 8045.9 8046.4	2.7378 +22 2.6706 2.6050 2.5410 2.4786 2.4786 2.4178 2.3584 2.3005 2.2440 2.1889	164.79 144.79 144.79 144.79 144.79 144.79 144.79 144.79 144.79	7.2079 + 6 7.0309 6.8582 6.6898 6.5255 6.3653 6.2090 6.0565 5.9079 5.7628	6.1709 - 5 6.3262 6.4855 6.6488 6.8162 6.9878 7.1636 7.3440 7.5288 7.7183	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
50000 50500 51000 51500 52000 52500 53500 54000 54500	49610 50102 50594 51086 51578 52070 52562 53053 53545 54037	9.6542 9.6526 9.6511 9.6496 9.6481 9.6466 9.6451 9.6436 9.6421	9.9136 - 3 9.3150 8.7526 8.2243 7.7279 7.2653 6.8508 6.4587 6.0878 5.7369	8047.4 8048.7 8049.9 8051.2 8052.4 8049.5 8021.5 7993.5 7965.5	2.1352 +22 2.0066 1.8857 1.7722 1.6655 1.5660 1.4769 1.3926 1.3128 1.2373	444.79 444.79 444.79 444.68 443.87 443.06 442.24	5.6214 + 6 5.2828 4.9646 4.6656 4.3847 4.1218 3.8802 3.6520 3.4365 3.2330	7.9125 - 5 8.4197 8.9593 9.5333 1.0144 - 4 1.0788 1.1439 1.2132 1.2869 1.3654	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
55000 55500 56000 56500 57000 57500 58000 58500 59500	54528 55020 55511 56002 56493 56984 57476 57476 578457 58948	9.6391 9.6376 9.6361 9.6346 9.6331 9.6316 9.6301 9.6286 9.6271 9.6256	5.4052 - 3 5.0915 4.7951 4.5149 4.2502 4.0001 3.7640 3.5410 3.3304 3.1317	7909.4 7881.4 7853.3 7825.3 7797.2 7769.1 7741.1 7713.0 7684.9 7656.9	1.1660 +22 1.0985 1.0347 9.7439 +21 9.1741 8.6357 8.1271 7.6468 7.1932 6.7651	440.62 439.80 438.98 438.16 437.34 436.52 435.70 434.87 434.05 433.22	3.0409 + 6 2.8596 2.6885 2.5271 2.3748 2.2313 2.0959 1.9683 1.8480 1.7347	1.4490 - 4 1.5380 1.6328 1.7339 1.8416 1.9564 2.0788 2.2094 2.3487 2.4973	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

		Accel.	0	Pressure	Nicos II -	Double to	O-W: : -		
Alfit	tude	due to	Specific weight	scale	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
H, m	Z, m	gravity g,msec ⁻²	ω, kg m ⁻² sec ⁻²	height H _P , m	n, m ⁻³	∇, m sec⁻¹		L, m	M
60000 60500 61000 61500 62500 63500 63500 64500	60572 61081 61591 62101 62611 63121 63631 64141	9.6224 9.6208 9.6193 9.6178 9.6163 9.6147 9.6132 9.6117	2.7427 - 3 2.5741 2.4153 2.2744 2.1408 2.0140 1.8937 1.7798 1.6718	7596-7 7568-0 7539-4 7480-9 7422-4 7363-9 7305-3 7246-7 7188-2	5.9267 +21 5.5633 5.2209 4.9172 4.6289 4.3554 4.0961 3.8502 3.6173	431.44 430.59 429.74 428.04 426.33 424.61 422.89 421.15 419.61	1.5135 + 6 1.4179 1.3280 1.2458 1.1681 1.0946 1.0253 9.5979 + 5 8.9800 8.3971	2.8506 - 4 3.0368 3.2360 3.4358 3.6498 3.8790 4.1246 4.3880 4.6706 4.9739	28.964 28.964 28.964 28.964 28.964 28.964 28.964
64500 65000 65500 66000 67000 67500 68000 68500 69500	65161 65672 66182 66693 67203 67714 68225 68735 69246 69757 70268	9.6086 9.6071 9.6056 9.6040 9.6025 9.6010 9.5995 9.5979 9.5964 9.5949 9.5933	1.5696 1.4729 - 3 1.3813 1.2948 1.2130 1.1357 1.0627 9.9386 - 4 9.2890 8.6766 8.0996	7129.6 7070.9 7012.3 6953.6 6894.9 6836.2 6777.5 6718.8 6660.0 6601.3 6542.5	3.3966 3.1878 +21 2.9902 2.8032 2.6265 2.4556 2.3019 2.1531 2.0127 1.8803 1.7555	415-91 414-15 412-38 410-61 408-82 407-03 405-23 403-42 401-61 399-78	7.8477 + 5 7.3300 6.8425 6.3836 5.9518 5.5459 5.1644 4.8061 4.4697	5.2998 - 4 5.6501 6.0268 6.4323 6.8689 7.3393 7.8466 8.3940 8.9851 9.6237	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
70000 70500 71000 71500 72000 72500 73500 74000 74500	70780 71291 71802 72314 72825 73337 73848 74360 74872 75384	9.5918 9.5903 9.5888 9.5872 9.5857 9.5842 9.5827 9.5811 9.5796	7.5561 - 4 7.0446 6.5634 6.1110 5.6859 5.2868 4.9122 4.5608 4.2315 3.9230	6483.6 6424.8 6366.0 6307.1 6248.2 6189.3 6130.4 6071.4 6012.5 5953.5	1.6380 +21 1.5274 1.4233 1.3254 1.2334 1.1470 1.0659 9.8978 +20 9.1846 8.5163	397.95 396.11 394.26 392.40 390.54 388.66 386.77 384.88 382.98 381.06	3.8583 + 5 3.5810 3.3214 3.0784 2.8511 2.6386 2.4401 2.22548 2.0820 1.9209	1.0314 - 3 1.1061 1.1870 1.2747 1.3698 1.4730 1.5851 1.7069 1.8395	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
75000 75500 76000 76500 77000 77500 78500 78500 79000 79500	75896 76408 76920 77432 77944 78457 78969 79482 79994 80507	9.577 9.575 9.574 9.572 9.570 9.569 9.567 9.566 9.564	3.634 - 4 3.364 3.111 2.876 2.655 2.450 2.258 2.080 1.914	5894. 5835. 5776. 5717. 5658. 5599. 5540. 5481. 5422.	7.891 +20 7.305 6.758 6.246 5.769 5.323 4.908 4.521 4.161 3.786	379.1 377.2 375.3 373.3 371.3 369.4 367.4 365.4 363.4	1.771 + 5 1.631 1.501 1.380 1.268 1.164 1.067 9.778 + 4 8.950 8.142	2.141 - 3 2.313 2.500 2.705 2.929 3.174 3.442 3.737 4.060 4.463	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
80000 80500 81000 81500 82000 82500 83500 84000 84500	81020 81533 82046 82559 83072 83585 84098 84612 85125 85639	9.561 9.550 9.557 9.555 9.555 9.554 9.5551 9.549 9.548	1.584 - 4 1.441 1.310 1.192 1.084 9.862 - 5 8.971 8.161 7.423 6.752	5424. 5425. 5425. 5426. 5427. 5428. 5429. 5430. 5431.	3.444 +20 3.133 2.851 2.593 2.359 2.147 1.953 1.777 1.616	363.4 363.4 363.4 363.4 363.4 363.4 363.4 363.4	7.408 + 4 6.739 6.131 5.578 5.075 4.617 4.200 3.821 3.477 3.163	4.906 - 3 5.392 5.927 6.515 7.161 7.871 8.651 9.509 1.045 - 2 1.149	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
85000 85500 86000 86500 87000 87500 88000 88500 89500	86152 86666 87180 87693 88207 88721 89236 89750 90264 90778	9.546 9.545 9.543 9.542 9.540 9.537 9.537 9.535 9.534 9.532	6.142 - 5 5.587 5.082 4.623 4.205 3.825 3.479 3.165 2.867 2.588	5432. 5433. 5434. 5435. 5436. 5437. 5437. 5438. 5463. 5510.	1.338 +20 1.217 1.107 1.007 9.165 +19 8.338 7.586 6.902 6.252 5.645	363.4 363.4 363.4 363.4 363.4 363.4 363.4 363.4 363.7	2.878 + 4 2.618 2.382 2.167 1.971 1.793 1.632 1.484 1.348 1.222	1.263 - 2 1.388 1.526 1.677 1.843 2.026 2.227 2.448 2.702 2.993	28,964 28,964 28,964 28,964 28,964 28,964 28,964 28,964 28,964
90000	91293	9.531	2.338 - 5	\$ 558 .	5.101 +19	367.3	1.109 + 4	3.312 - 2	28.96

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Alti	tude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, m	H, m	gravity g,msec ⁻²	ω, kg m ⁻² sec ⁻²	height H _P , m	n, m ⁻³	⊽, m sec⁻¹	ν , sec ⁻¹	L, m	M
60000 60500 61000 61500 62500 63500 63500 64000 64500	59439 59930 60420 60911 61401 61891 62382 62872 63362 63852	9.6241 9.6226 9.6211 9.6196 9.6181 9.6166 9.6151 9.6136 9.6121 9.6106	2.9442 - 3 2.7673 2.6004 2.4430 2.3017 2.1692 2.0434 1.9239 1.8106 1.7032	7628.8 7600.7 7572.6 7544.5 7492.5 7435.1 7377.7 7320.3 7262.9 7205.5	6.3610 +21 5.9797 5.6199 5.2806 4.9760 4.6903 4.4189 4.1612 3.9168 3.6849	432.39 431.56 430.73 429.90 428.38 426.70 425.02 423.33 421.63 419.93	1.6280 + 6 1.5275 1.4328 1.3437 1.2617 1.1846 1.1117 1.0427 9.7749 + 5 9.1591	2.6560 - 4 2.8254 3.0062 3.1994 3.3952 3.6021 3.8233 4.0600 4.3134 4.5848	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
65000 65500 66000 67000 67500 68500 68500 69500	64342 64832 65322 65811 66301 66791 67280 67770 68259 68748	9.6091 9.6076 9.6061 9.6046 9.6031 9.6016 9.6001 9.5986 9.5971 9.5956	1.6013 - 3 1.5048 1.4134 1.3269 1.2450 1.1675 1.0943 1.0251 9.5974 - 4	7148.1 7090.6 7033.2 6975.7 6918.3 6860.8 6803.3 6745.9 6688.4 6630.8	3.4651 +21 3.2567 3.0594 2.8725 2.6956 2.5283 2.3701 2.2206 2.0794 1.9460	418.22 416.51 414.78 413.05 411.32 409.57 407.82 406.06 404.30 402.52	8.5776 + 5 8.0288 7.5111 7.0229 6.5628 6.1294 5.7213 5.3372 4.9760 4.6364	4.8757 - 4 5.1876 5.5223 5.8815 6.2674 6.6821 7.1281 7.0081 8.1249 8.6818	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
70000 70500 71000 71500 72500 72500 73500 74000 74500	69237 69727 70216 70705 71193 71682 72171 72660 73148 73637	9.5941 9.5927 9.5912 9.5882 9.5867 9.5852 9.5837 9.5822 9.5807	8.3983 — 4 7.8492 7.3317 6.8441 6.3850 5.9529 5.5465 5.1645 4.8055	6573.3 6515.8 6458.3 6400.7 6343.2 6285.6 6228.1 6170.5 6112.9 6055.3	1.8201 +21 1.7014 1.5895 1.4840 1.3847 1.2912 1.2032 1.1205 1.0428 9.6980 +20	400.74 398.95 397.16 395.35 393.54 391.72 389.89 388.06 386.21 384.36	4.3174 + 5 4.0177 3.7365 3.4727 3.2254 2.9937 2.7767 2.5737 2.3638 2.2063	9.2821 - 4 9.9299 1.0629 - 3 1.1385 1.2201 1.3085 1.4041 1.5078 1.6202	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
75000 75500 76000 76500 77500 77500 78000 78500 79000 79500	74125 74614 75102 75590 76078 76566 77054 77542 78030 78518	9.579 9.578 9.576 9.575 9.573 9.572 9.570 9.569 9.567	4.152 - 4 3.856 3.578 3.317 3.073 2.845 2.632 2.433 2.247 2.074	5998. 5940. 5882. 5825. 5767. 5710. 5652. 5594. 5537.	9.013 +20 8.370 7.768 7.204 6.675 6.181 5.719 5.287 4.884 4.508	382.5 380.6 378.7 376.9 373.0 371.1 369.2 367.3 365.3	2.041 + 5 1.886 1.741 1.607 1.482 1.365 1.256 1.155 1.062 9.747 + 4	1.874 - 3 2.018 2.175 2.345 2.531 2.733 2.954 3.195 3.459 3.748	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
80000 80500 81000 81500 82000 82500 83500 84000 84500	79006 79493 79981 80468 80956 81443 81930 82417 82904 83391	9.564 9.563 9.561 9.560 9.558 9.557 9.555 9.555 9.555	1.912 - 4 1.743 1.589 1.449 1.321 1.205 1.009 1.002 9.135 - 5 8.330	5422. 5423. 5423. 5424. 5425. 5426. 5427. 5428. 5429.	4.157 +20 3.790 3.457 3.152 2.875 2.622 2.391 2.180 1.989 1.814	363.4 363.4 363.4 363.4 363.4 363.4 363.4 363.4	8.940 + 4 8.153 7.435 6.780 6.183 5.639 5.142 4.690 4.277 3.901	4.065 - 3 4.457 4.888 5.360 5.877 6.445 7.067 7.749 8.496 9.316	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
85000 85500 86000 86500 87500 87500 88500 88500 89500	83878 84365 84852 85339 85325 86312 86798 87285 87771 88257	9.550 9.548 9.547 9.545 9.544 9.542 9.541 9.539 9.538	7.596 - 5 6.927 6.317 5.761 5.253 4.791 4.369 3.984 3.634 3.314	5430. 5431. 5432. 5433. 5434. 5435. 5435. 5437. 5437.	1.654 +20 1.509 1.376 1.255 1.145 1.044 9.522 +19 8.685 7.922 7.226	363.4 363.4 363.4 363.4 363.4 363.4 363.4 363.4	3.558 + 4 3.245 2.959 2.699 2.462 2.245 2.048 1.704 1.554	1.021 - 2 1.120 1.228 1.346 1.476 1.618 1.774 1.945 2.133 2.338	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
90000	88743	9.535	3.022 - 5	5439.	6.591 +19	363.4	1.418 + 4	2.563 - 2	28.96

Altif		Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
Z, m	H, m	gravity g,msec ⁻²	weight ω, kg m ⁻² sec ⁻²	height H _P , m	n, m ⁻³	⊽, m sec⁻¹	ν , sec ⁻¹	L, m	M
90000 90500 91500 92000 92500 93000 93500 94500	88743 89229 89715 90201 90687 91173 91659 92144 92630 93116	9.535 9.533 9.532 9.530 9.529 9.527 9.527 9.524 9.524 9.523 9.521	3.022 - 5 2.735 2.477 2.245 2.036 1.849 1.679 1.527 1.389 1.265	5439. 5485. 5531. 5577. 5623. 5669. 5715. 5761. 5807. 5853.	6.591 +19 5.965 5.403 4.898 4.444 4.035 3.667 3.335 3.035 2.764	363.4 364.9 366.4 367.9 369.4 370.9 372.3 373.8 375.3	1.418 + 4 1.288 1.172 1.067 9.716 + 3 8.858 8.081 7.378 6.742 6.164	2.563 - 2 2.832 3.127 3.449 3.802 4.187 4.607 5.066 5.566 6.111	28.96 28.96 28.96 28.96 28.96 28.96 28.95 28.95 28.95
95000 95500 96000 96500 97000 97500 98000 98500 99000	93601 94086 94572 95057 95542 96027 96512 96997 97482 97966	9.520 9.518 9.517 9.515 9.514 9.513 9.511 9.510 9.508 9.507	1.153 - 5 1.051 9.594 - 6 8.761 8.006 7.321 6.699 6.134 5.620 5.153	5899. 5946. 5992. 6038. 6130. 6177. 6223. 6269.	2.520 +19 2.298 2.098 1.917 1.752 1.603 1.467 1.344 1.232	378.2 379.6 381.1 382.5 383.9 385.4 386.8 388.2 389.6 391.0	5.640 + 3 5.165 4.732 4.339 3.982 3.656 3.359 3.088 2.841 2.615	6.705 - 2 7.350 8.052 8.815 9.643 1.054 - 1 1.151 1.257 1.371 1.495	28.94 28.94 28.94 28.93 28.92 28.92 28.91 28.90 28.90 28.89
100000 101000 102000 103000 104000 105000 106000 107000 108000	98451 99420 100389 101357 102326 103294 104261 105228 106195 107162	9.505 9.502 9.499 9.496 9.493 9.488 9.485 9.482 9.479	4.728 - 6 3.952 3.318 2.796 2.366 2.009 1.712 1.463 1.255	6362. 6515. 6668. 6821. 6974. 7128. 7281. 7435. 7588.	1.037 +19 8.681 +18 7.295 6.156 5.215 4.434 3.784 3.784 3.240 2.783 2.398	392.4 397.0 401.6 406.1 410.6 415.0 419.4 423.7 428.0 432.3	2.409 + 3 2.040 1.734 1.480 1.267 1.089 9.393 + 2 8.126 7.051 6.136	1.629 - 1 1.946 2.316 2.744 3.240 3.810 4.465 5.215 6.071 7.045	28.88 28.86 28.83 28.81 28.78 28.75 28.72 28.68 28.64
110000 111000 112000 113000 114000 115000 116000 117000 118000	108129 109095 110060 111026 111991 112956 113921 114885 115849 116813	9.476 9.473 9.470 9.467 9.461 9.458 9.455 9.455	9.314 - 7 7.919 6.773 5.825 5.036 4.374 3.816 3.384 2.941 2.597	7896. 8201. 8507. 8813. 9119. 9425. 9732. 10038. 10345.	2.073 +18 1.766 1.513 1.304 1.129 9.830 +17 8.594 7.546 6.652 5.886	436.5 444.8 452.9 460.9 468.8 476.5 484.1 491.6 499.0 506.3	5.356 + 2 4.649 4.057 3.557 3.134 2.773 2.463 2.196 1.965	8.150 - 1 9.568 1.117 + 0 1.296 1.496 1.719 1.966 2.239 2.540 2.870	28.56 28.51 28.47 28.42 28.37 28.32 28.27 28.22 28.17 28.12
120000 121000 122000 123000 124000 125000 126000 127000 128000	117776 118739 119702 120665 121627 122589 123551 124512 125473 126434	9.444 9.441 9.438 9.435 9.432 9.426 9.423 9.420	2.301 - 7 1.994 1.741 1.530 1.353 1.203 1.075 9.647 - 8 8.696 7.869	10959. 11570. 12182. 12794. 13407. 14019. 14633. 15246. 15860.	5.226 +17 4.539 3.972 3.498 3.100 2.761 2.472 2.224 2.009 1.821	513.4 527.5 541.2 554.5 567.5 580.3 592.7 604.9 616.9 628.7	1.588 + 2 1.417 1.272 1.148 1.041 9.484 + 1 8.674 7.963 7.334 6.777	3.233 + 0 3.722 4.254 4.830 5.451 6.118 6.833 7.597 8.411 9.276	28.07 28.02 27.97 27.91 27.86 27.81 27.76 27.72 27.67 27.62
130000 131000 132000 134000 134000 135000 136000 137000 138000	127394 128354 129314 130274 131233 132192 133151 134109 135067 136025	9.417 9.415 9.412 9.409 9.406 9.403 9.400 9.397 9.394 9.391	7.147 - 8 6.514 5.955 5.460 5.020 4.628 4.276 3.961 3.676 3.419	17089. 17704. 18320. 18936. 19552. 20168. 20785. 21403. 22020. 22638.	1.657 +17 1.513 1.386 1.273 1.173 1.083 1.002 9.299 +16 8.645 8.053	640.2 651.5 662.6 673.6 684.3 694.9 705.4 715.7 725.8 735.8	6.280 + 1 5.836 5.436 5.076 4.750 4.454 4.185 3.939 3.714 3.507	1.019 + 1 1.116 1.219 1.327 1.441 1.560 1.686 1.817 1.954 2.098	27.58 27.53 27.49 27.45 27.41 27.37 27.33 27.30 27.26 27.23
140000 141000 142000 143000 145000 145000 146000 147000 148000	136983 137940 138897 139853 140810 141766 142721 143677 144632 145587	9.388 9.386 9.383 9.380 9.377 9.374 9.371 9.368 9.365 9.362	3.186 - 8 2.975 2.782 2.606 2.445 2.298 2.162 2.038 1.923	23257. 23876. 24495. 25115. 25735. 26355. 26976. 27597. 28218. 28840.	7.516 +16 7.027 6.581 6.174 5.801 5.458 5.143 4.852 4.584 4.336	745.7 755.4 765.0 774.5 783.9 793.2 802.3 811.4 820.3 829.2	3.317 + 1 3.142 2.980 2.830 2.691 2.562 2.442 2.330 2.226 2.128	2.248 + 1 2.404 2.567 2.737 2.913 3.095 3.285 3.482 3.685 3.896	27.20 27.17 27.13 27.11 27.08 27.05 27.02 27.00 26.97 26.94
150000 151000 152000 153000 154000 155000 156000 157000 158000 159000	146541 147496 148450 149403 150357 151310 152263 153215 154167 155119	9.360 9.357 9.354 9.351 9.348 9.345 9.342 9.337 9.334	1.718 - 8 1.635 1.557 1.884 1.416 1.351 1.291 1.234 1.180	29462. 29932. 30401. 30871. 31341. 31812. 32282. 32753. 33224. 33696.	4.107 +16 3.913 3.732 3.562 3.402 3.251 3.109 2.975 2.849 2.730	838.0 844.5 851.0 857.4 863.8 870.1 876.4 882.6 882.6 884.9	2.037 + 1 1.956 1.880 1.807 1.739 1.674 1.613 1.554 1.499	4.114 + 1 4.317 4.527 4.743 4.967 5.197 5.434 5.678 5.930 6.188	26.92 26.89 26.87 26.84 26.82 26.79 26.77 26.71 26.71

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Altit	rude	Accel. due to gravity	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, m	H, m	g,msec ⁻²	ω, kg m ⁻² sec ⁻²	H _P , m	n, m ⁻³	⊽, m sec⁻¹	ν, sec ⁻¹	L, m	М
160000 161000 162000 163000 164000 165000 166000 167000 168000	156071 157022 157973 158924 159874 160825 161775 162724 163673 164622	9.331 9.328 9.325 9.325 9.319 9.317 9.314 9.311 9.308 9.305	1.081 - 8 1.040 1.002 9.646 - 9 9.292 8.954 8.631 8.322 8.027 7.745	34168. 34486. 34804. 35123. 35442. 35761. 36080. 36399. 36719.	2.618 +16 2.523 2.432 2.345 2.262 2.182 2.107 2.034 1.964 1.897	901.0 905.1 909.1 913.1 917.1 921.1 925.0 929.0 932.9 936.8	1.396 + 1 1.351 1.308 1.267 1.228 1.190 1.153 1.118 1.085	6.454 + 1 6.697 6.948 7.205 7.470 7.741 8.020 8.307 8.601 8.904	26.66 26.63 26.60 26.58 26.55 26.55 26.49 26.47 26.44 26.42
170000 171000 172000 172000 173000 174000 175000 176000 178000 179000	165571 166520 167468 168416 169363 170310 171257 172204 173150 174097	9.302 9.299 9.297 9.294 9.291 9.288 9.285 9.282 9.280 9.277	7.475 - 9 7.234 7.002 6.779 6.565 6.358 6.159 5.967 5.782 5.604	37358. 37586. 37814. 38041. 38269. 38497. 38726. 38954. 39182. 39411.	1.830 +16 1.773 1.779 1.667 1.616 1.568 1.521 1.476 1.432 1.390	940.7 943.4 946.1 948.8 951.5 954.2 956.9 959.6 962.2 964.9	1.019 + 1 9.903 + 0 9.627 9.361 9.103 8.854 8.614 8.381 8.156 7.938	9.233 + 1 9.527 9.828 1.014 + 2 1.045 1.078 1.111 1.145 1.180 1.216	26.45 26.42 26.39 26.36 26.33 26.30 26.27 26.24 26.21 26.18
180000 181000 182000 183000 184000 185000 186000 186000 189000	175042 175988 176933 177878 178823 179767 180711 181655 182598 183542	9.274 9.271 9.268 9.265 9.263 9.260 9.257 9.251 9.251	5.433 - 9 5.268 5.108 4.954 4.806 4.663 4.525 4.392 4.263 4.139	39640. 39869. 40098. 40327. 40556. 40786. 41015. 41245. 41475.	1.349 +16 1.310 1.272 1.236 1.201 1.166 1.134 1.102 1.071	967.5 970.2 972.8 975.4 978.1 980.7 983.3 985.9 988.5 991.0	7.727 + 0 7.524 7.326 7.135 6.950 6.771 6.597 6.429 6.266 6.109	1.252 + 2 1.290 1.328 1.367 1.407 1.448 1.490 1.533 1.577	26.15 26.12 26.09 26.06 26.03 26.00 25.97 25.94 25.91 25.88
190000 191000 192000 193000 194000 195000 196000 197000 198000	184485 185427 186370 187312 188253 189195 190136 191077 192018 192958	9.246 9.243 9.240 9.237 9.231 9.229 9.226 9.223 9.223	4.019 - 9 3.909 3.802 3.698 3.598 3.501 3.407 3.316 3.227 3.141	41935. 42103. 42271. 42439. 42608. 42776. 42945. 43113. 43282. 43451.	1.013 +16 9.863 +15 9.607 9.359 9.119 8.886 8.659 8.439 8.226 8.019	993.6 995.5 997.3 999.1 1001.0 1002.8 1004.6 1006.4 1008.2 1010.0	5.955 + 0 5.811 5.671 5.535 5.403 5.274 5.149 5.027 4.909 4.794	1.668 + 2 1.713 1.759 1.805 1.853 1.901 1.951 2.002 2.054 2.107	25.85 25.82 25.79 25.76 25.73 25.70 25.68 25.65 25.65 25.59
200000 201000 202000 203000 204000 205000 206000 207000 208000 209000	193898 194838 195777 196716 197655 198594 199532 200470 201408 202346	9.217 9.215 9.212 9.209 9.206 9.203 9.200 9.198 9.195 9.195	3.058 - 9 2.977 2.899 2.823 2.749 2.678 2.608 2.541 2.476 2.412	43620. 43789. 43758. 44127. 44267. 44636. 44636. 44806. 44975. 45145.	7.818 +15 7.622 7.433 7.248 7.069 6.896 6.727 6.562 6.403 6.248	1011.8 1013.7 1015.5 1017.3 1019.0 1020.8 1022.6 1024.4 1026.2 1028.0	4.682 + 0 4.573 4.467 4.364 4.264 4.167 4.072 3.979 3.889 3.889	2.161 + 2 2.216 2.273 2.331 2.390 2.450 2.512 2.574 2.639 2.704	25.56 25.53 25.50 25.47 25.44 25.41 25.38 25.35 25.33
210000 211000 212000 213000 214000 215000 216000 217000 218000 219000	203283 204220 205156 206093 207029 207964 208900 209835 210770 211705	9.189 9.186 9.184 9.181 9.178 9.175 9.175 9.173 9.170 9.167	2.351 - 9 2.291 2.233 2.176 2.122 2.068 2.017 1.967 1.918 1.870	45315. 45485. 45655. 45826. 45996. 46166. 46337. 46507. 46678. 46849.	6.097 +15 5.951 5.808 5.670 5.535 5.404 5.277 5.153 5.033 4.915	1029.8 1031.5 1033.3 1035.1 1036.8 1038.6 1040.3 1042.1 1043.9 1045.6	3.716 + 0 3.633 3.552 3.474 3.397 3.322 3.249 3.179 3.109 3.042	2.771 + 2 2.839 2.909 2.980 3.052 3.126 3.202 3.279 3.357 3.437	25.27 25.24 25.21 25.18 25.15 25.12 25.09 25.06 25.04 25.01
220000 221000 222000 223000 224000 225000 225000 226000 227000 228000 229000	212639 213573 214507 215440 216374 217306 218239 219171 220104 221035	9.161 9.159 9.156 9.153 9.150 9.147 9.145 9.142 9.139	1.824 - 9 1.779 1.736 1.694 1.652 1.612 1.573 1.536 1.499	47020. 47191. 47362. 47533. 47705. 47876. 48048. 48219. 48391. 48563.	4.801 +15 4.690 4.582 4.477 4.375 4.275 4.178 4.083 3.991 3.902	1047.3 1049.1 1050.8 1052.6 1054.3 1056.0 1057.8 1059.5 1061.2 1062.9	2.976 + 0 2.912 2.850 2.789 2.730 2.672 2.616 2.561 2.507 2.455	3.519 + 2 3.602 3.687 3.774 3.862 3.952 4.044 4.137 4.233 4.330	24.98 24.95 24.92 24.89 24.86 24.83 24.80 24.77 24.75 24.72
230000 231000 232000 233000 234000 235000 236000 237000 238000 239000	221967 222898 223829 224760 225690 225620 227550 228479 229409 230338	9.134 9.131 9.128 9.125 9.122 9.120 9.117 9.114 9.111	1.428 - 9 1.395 1.363 1.332 1.301 1.272 1.243 1.214 1.187 1.160	48735. 48875. 49016. 49156. 49297. 49438. 49579. 49720. 49720. 49861. 50002.	3.815 +15 3.732 3.651 3.573 3.496 3.421 3.348 3.277 3.208 3.140	1064.7 1066.0 1067.4 1068.8 1070.1 1071.5 1072.9 1074.2 1075.6 1076.9	2.404 + 0 2.355 2.307 2.260 2.215 2.170 2.126 2.084 2.042 2.002	4.429 + 2 4.527 4.627 4.729 4.832 4.938 5.046 5.155 5.267 5.381	24.69 24.66 24.63 24.60 24.57 24.54 24.51 24.49 24.46 24.43

Accel Dropping										
Alti	tude	Accel. due to gravity	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight	
Z, m	H, m	g,msec ⁻²	ω, kg m ⁻² sec ⁻²	H _P , m	n, m ⁻³	√, m sec⁻¹	ν , sec ⁻¹	L, m	M	
240000 241000 242000 243000 245000 245000 246000 247000 248000 249000	231266 232195 233123 234051 234978 235905 236832 237759 238686 239612	9.106 9.103 9.100 9.098 9.095 9.092 9.089 9.087 9.084 9.081	1.134 - 9 1.108 1.084 1.059 1.036 1.013 9.902 -10 9.683 9.470 9.262	50144. 50285. 50426. 50568. 50709. 50851. 50993. 51135. 51277.	3.074 +15 3.009 2.946 2.885 2.824 2.766 2.709 2.653 2.598 2.545	1078.3 1079.7 1081.0 1082.4 1083.7 1085.1 1086.4 1087.7 1089.1	1.962 + 0 1.923 1.885 1.848 1.812 1.776 1.742 1.708 1.675 1.642	5.496 + 2 5.614 5.735 5.857 5.982 6.108 6.238 6.369 6.503 6.639	24.40 24.37 24.31 24.31 24.28 24.25 24.22 24.20 24.17 24.14	
250000 251000 252000 253000 254000 255000 256000 257000 258000 259000	240538 241463 242389 243314 2442163 245163 246087 247011 247934 248858	9.078 9.076 9.073 9.070 9.067 9.065 9.062 9.059 9.056 9.054	9.058 -10 8.860 8.667 8.478 8.294 8.115 7.940 7.769 7.602 7.439	51561. 51703. 51845. 51987. 52130. 52272. 52415. 52557. 52700. 52843.	2.493 +15 2.442 2.392 2.344 2.296 2.250 2.205 2.1160 2.117 2.075	1091.8 1093.1 1094.4 1095.8 1097.1 1098.4 1099.8 1101.1 1102.4 1103.8	1.611 + 0 1.580 1.550 1.5520 1.491 1.463 1.435 1.435 1.438	6.778 + 2 6.919 7.063 7.209 7.358 7.509 7.663 7.820 7.980 8.142	24.11 24.08 24.05 24.05 24.02 23.99 23.96 23.93 23.91 23.88 23.85	
260000 261000 262000 263000 264000 265000 266000 267000 268000 269000	249781 250704 251626 252548 253470 254392 255313 256235 257155 258076	9.051 9.048 9.045 9.043 9.040 9.037 9.034 9.032 9.029	7.280 -10 7.125 6.973 6.826 6.681 6.540 6.403 6.268 6.137 6.009	52986. 53128. 53271. 53415. 53558. 53701. 53844. 53988. 54131. 54275.	2.034 +15 1.993 1.954 1.916 1.878 1.841 1.805 1.770 1.736	1105.1 1106.4 1107.7 1109.0 1110.4 1111.7 1113.0 1114.3 1115.6	1.330 + 0 1.305 1.281 1.257 1.234 1.211 1.189 1.167 1.146	8.307 + 2 8.475 8.646 8.820 8.996 9.176 9.359 9.545 9.734 9.927	23.82 23.79 23.76 23.73 23.70 23.67 23.64 23.62 23.59 23.56	
270000 271000 272000 273000 274000 275000 276000 277000 278000 279000	258996 259916 260836 261755 262675 263594 264512 265430 266349 267266	9.024 9.021 9.018 9.015 9.013 9.010 9.007 9.004 9.002 8.999	5.884 -10 5.762 5.642 5.526 5.412 5.301 5.192 5.086 4.982 4.880	54418. 54562. 54706. 54850. 54994. 55138. 55282. 55426. 55570.	1.669 +15 1.637 1.605 1.575 1.545 1.515 1.486 1.458 1.431	1118.2 1119.5 1120.8 1122.1 1123.4 1124.7 1126.0 1127.3 1128.6 1129.9	1.105 + 0 1.085 1.065 1.065 1.0046 1.027 1.009 9.907 - 1 9.731 9.558 9.389	1.012 + 3 1.032 1.032 1.073 1.074 1.115 1.137 1.159 1.181 1.204	23.53 23.50 23.47 23.44 23.41 23.38 23.35 23.33 23.27	
280000 281000 282000 283000 284000 285000 286000 287000 288000 289000	268184 269101 270018 270935 271851 272767 273683 274599 275514 276429	8.996 8.994 8.991 8.988 8.986 8.983 8.980 8.977 8.975	4.781 -10 4.684 4.590 4.497 4.497 4.318 4.232 4.148 4.065 3.984	55859. 56004. 56148. 56293. 56438. 56727. 56872. 57018. 57163.	1.377 +15 1.352 1.326 1.302 1.277 1.254 1.231 1.208 1.186 1.164	1131.2 1132.5 1133.8 1135.1 1136.4 1137.7 1139.0 1140.2 1141.5 1142.8	9.223 - 1 9.060 8.901 8.745 8.593 8.443 8.296 8.153 8.012 7.874	1.227 + 3 1.250 1.274 1.298 1.323 1.347 1.373 1.399 1.425 1.451	23.24 23.21 23.18 23.15 23.12 23.09 23.06 23.03 23.01 22.98	
290000 291000 292000 293000 294000 295000 296000 297000 298000 299000	277344 278258 279172 280086 281000 281913 282826 283739 284652 285564	8.969 8.967 8.964 8.951 8.956 8.955 8.953 8.950 8.948	3.905 -10 3.828 3.753 3.679 3.607 3.536 3.467 3.400 3.334 3.269	57308. 57453. 57599. 57744. 57890. 58035. 58181. 58327. 58473. 58619.	1.143 +15 1.122 1.102 1.082 1.062 1.043 1.024 1.006 9.877 +14	1144.1 1145.4 1146.6 1147.9 1149.2 1150.5 1151.7 1153.0 1154.3 1155.5	7.738 - 1 7.606 7.476 7.349 7.224 7.101 6.981 6.864 6.748 6.635	1.478 + 3 1.506 1.534 1.562 1.591 1.620 1.650 1.680 1.710	22.95 22.92 22.89 22.86 22.83 22.80 22.77 22.75 22.72 22.69	
300000 302000 304000 306000 308000 310000 312000 314000 316000	286476 288299 290121 291942 293762 295581 297399 299215 301031 302845	8.942 8.937 8.932 8.926 8.921 8.916 8.910 8.905 8.899	3.206 -10 3.086 2.971 2.860 2.754 2.653 2.556 2.462 2.372 2.286	58765. 59012. 59260. 59507. 59755. 60004. 60253. 60501. 60751. 61000.	9.528 +14 9.201 8.886 8.5583 8.291 8.011 7.741 7.482 7.232 6.992	1156.8 1158.9 1161.0 1163.0 1165.1 1167.2 1169.2 1171.3 1173.4 1175.4	6.524 - 1 6.311 6.106 5.908 5.718 5.534 5.358 5.187 5.023 4.865	1.773 + 3 1.836 1.901 1.908 2.038 2.109 2.182 2.258 2.336 2.416	22.66 22.60 22.54 22.49 22.43 22.37 22.31 22.26 22.20 22.14	
320000 322000 324000 326000 326000 330000 332000 334000 336000 338000	304659 306471 308282 310092 311901 313709 315516 317322 319127 320930	8.889 8.883 8.878 8.873 8.868 8.862 8.857 8.852 8.854 8.841	2.204 -10 2.124 2.048 1.975 1.905 1.837 1.772 1.710 1.650 1.593	61250. 61500. 61750. 62001. 62251. 62502. 62754. 63005. 63257. 63509.	6.761 +14 6.538 6.324 6.118 5.919 5.727 5.543 5.365 5.193 5.028	1177.5 1179.5 1181.5 1183.6 1185.6 1187.7 1189.7 1191.7 1193.7 1195.8	4.712 - 1 4.565 4.423 4.286 4.154 4.026 3.903 3.784 3.670 3.559	2.499 + 3 2.584 2.671 2.762 2.854 2.950 3.048 3.149 3.253 3.360	22.08 22.03 21.97 21.91 21.86 21.80 21.74 21.69 21.58	

Altit	tude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
Z, m	H, m	gravity g,msec ⁻²	weigin ω, kg m ⁻² sec ⁻²	height H _P , m	n, m ⁻³	∇, m sec ⁻¹	ν , sec ⁻¹	L, m	M
340000 342000 344000 346000 350000 352000 354000 356000 358000	322733 324534 326335 328134 329932 331729 333525 335320 337114 338907	8.836 8.830 8.825 8.820 8.815 8.809 8.804 8.709 8.709 8.704 8.738	1.537 -10 1.484 1.433 1.383 1.336 1.290 1.247 1.204 1.164	63762. 64014. 64267. 64521. 64774. 65028. 65282. 65536. 65791. 66045.	4.869 +14 4.715 4.567 4.424 4.286 4.153 4.025 3.901 3.781	1197.8 1199.8 1201.8 1203.8 1205.8 †207.8 1209.8 1211.8 1213.8 1215.8	3.452 - 1 3.348 3.249 3.152 3.059 2.969 2.882 2.798 2.798 2.716 2.638	3.470 + 3 3.583 3.699 3.819 3.942 4.068 4.198 4.331 4.468 4.609	21.52 21.46 21.41 21.35 21.30 21.24 21.19 21.13 21.08 21.03
360000 362000 364000 366000 370000 372000 374000 376000 378000	340699 342490 344279 346068 3478542 351427 353212 354995 356777	8.783 8.778 8.773 8.768 8.762 8.757 8.752 8.747 8.741 8.736	1.087 -10 1.051 1.016 9.820 -11 9.496 9.183 8.882 8.592 8.313 8.043	66300. 66556. 66811. 67067. 67324. 67580. 67837. 68094. 68351.	3.554 +14 3.446 3.342 3.242 3.144 3.051 2.960 2.872 2.787 2.706	1217.7 1219.7 1221.7 1223.7 1225.6 1227.6 1229.6 1231.5 1233.5	2.562 - 1 2.488 2.417 2.348 2.281 2.217 2.154 2.094 2.035 1.978	4.754 + 3 4.903 5.055 5.212 5.373 5.538 5.708 5.882 6.061 6.245	20.97 20.92 20.86 20.81 20.76 20.75 20.65 20.60 20.55
380000 382000 384000 386000 390000 392000 394000 396000 398000	358559 360339 362118 363896 365673 367449 369223 370997 372770 374542	8.731 8.726 8.721 8.716 8.710 8.705 8.700 8.695 8.690 8.685	7.783 -11 7.533 7.291 7.058 6.833 6.616 6.407 6.205 6.010 5.822	68866. 69124. 69382. 69641. 69900. 70159. 70418. 70678. 71198.	2.626 +14 2.550 2.476 2.404 2.335 2.267 2.202 2.140 2.079 2.020	1237.4 1239.3 1241.3 1243.2 1245.2 1245.2 1247.1 1249.0 1251.0 1252.9	1.924 - 1 1.870 1.819 1.769 1.721 1.674 1.628 1.584 1.542	6.433 + 3 6.626 6.825 7.028 7.237 7.451 7.671 7.896 8.127 8.364	20.44 20.39 20.34 20.29 20.24 20.19 20.14 20.09 20.04
40000 402000 404000 406000 410000 412000 412000 416000 418000	376312 378082 379850 381618 383384 385150 386914 388677 390440 392201	8.679 8.674 8.669 8.664 8.659 8.654 8.649 8.644 8.638	5.640 -11 5.468 5.302 5.142 4.986 4.836 4.691 4.550 4.414 4.283	71459. 71673. 71888. 72103. 72318. 72533. 72749. 73180. 73396.	1.963 +14 1.909 1.856 1.806 1.756 1.709 1.662 1.617 1.574	1256.7 1258.2 1259.8 1261.3 1262.8 1264.3 1265.8 1267.3 1268.8 1270.3	1.460 - 1 1.422 1.384 1.313 1.279 1.245 1.213 1.182	8.607 + 3 8.851 9.101 9.357 9.619 9.888 1.016 + 4 1.045 1.074 1.103	19.94 19.89 19.84 19.79 19.75 19.70 19.65 19.60 19.56
42000 422000 424000 426000 428000 430000 432000 436000 438000	393961 395720 397478 399235 400991 402746 404500 406253 408005	8.628 8.623 8.618 8.613 8.608 8.603 8.598 8.593 8.593 8.588	4.156 -11 4.033 3.913 3.798 3.687 3.579 3.474 3.373 3.275 3.180	73613. 73829. 74046. 74263. 74480. 74698. 74916. 75133. 75352.	1.490 +14 1.450 1.411 1.374 1.337 1.302 1.268 1.234 1.202 1.170	1271.8 1273.3 1274.8 1276.2 1277.7 1279.2 1280.7 1282.2 1283.7 1285.1	1.122 - 1 1.093 1.065 1.038 1.011 9.858 - 2 9.609 9.366 9.131 8.901	1.134 + 4 1.165 1.197 1.230 1.263 1.298 1.333 1.369 1.406 1.444	19.47 19.42 19.38 19.33 19.29 19.24 19.20 19.16 19.11
# 40000 # 42000 # 44000 # 44000 # 52000 # 52000 # 54000 # 58000	411506 413255 415002 416749 418495 420240 421983 423726 425467 427208	8.577 8.572 8.567 8.562 8.557 8.552 8.547 8.542 8.537 8.532	3.088 -11 2.999 2.913 2.830 2.749 2.670 2.594 2.521 2.450 2.381	75789. 76007. 76226. 76445. 76665. 77104. 77325. 77545.	1.140 +14 1.110 1.081 1.053 1.026 9.991 +13 9.733 9.483 9.240 9.003	1286.6 1288.1 1289.6 1291.0 1292.5 1294.0 1295.5 1296.9 1298.4 1299.8	8.678 - 2 8.462 8.251 8.046 7.846 7.652 7.463 7.280 7.101 6.927	1.483 + 4 1.522 1.563 1.605 1.647 1.691 1.736 1.782 1.828 1.828	19.03 18.99 18.94 18.90 18.86 18.82 18.78 18.78 18.70
460000 462000 464000 466000 470000 472000 474000 478000	428948 430686 432424 434160 435896 437630 437364 441096 442828 444558	8.527 8.522 8.517 8.512 8.507 8.502 8.497 8.492 8.487 8.482	2.314 -11 2.249 2.186 2.125 2.066 2.009 1.953 1.899 1.847	77986. 78207. 78428. 78650. 78871. 79093. 79315. 79537. 79760.	8.773 +13 8.550 8.333 8.121 7.916 7.716 7.522 7.333 7.149 6.970	1301.3 1302.8 1304.2 1305.7 1307.1 1308.6 1310.0 1311.5 1312.9	6.758 - 2 6.593 6.433 6.276 6.124 5.976 5.832 5.692 5.556 5.423	1.926 + 4 1.976 2.028 2.080 2.134 2.190 2.246 2.304 2.363 2.424	18.63 18.59 18.55 18.51 18.48 18.44 18.40 18.37 18.33
480000 482000 484000 486000 490000 492000 494000 494000 498000	446287 448016 449743 451469 453195 454919 456642 458365 460086 461806	8.477 8.472 8.467 8.4657 8.4553 8.448 8.443 8.443	1.747 -11 1.699 1.653 1.608 1.565 1.522 1.481 1.441 1.403	80206. 80429. 80652. 80876. 81100. 81324. 81548. 81772. 81997.	6.796 +13 6.627 6.462 6.302 6.146 5.994 5.846 5.703 5.563 5.426	1315.8 1317.3 1318.7 1320.2 1321.6 1323.0 1324.5 1325.9 1327.3 1328.8	5.293 - 2 5.167 5.044 4.924 4.808 4.694 4.583 4.475 4.370 4.268	2.486 + 4 2.549 2.614 2.681 2.749 2.819 2.890 2.963 3.037 3.113	18.26 18.23 18.19 18.16 18.13 18.10 18.06 18.03 18.00 17.97

Alti	tude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
Z, m	H, m	gravity g,msec ⁻²	weight ω,kg m²sec²	height H _P , m		⊽, m sec⁻¹	ν , sec ⁻¹	L, m	M
500000 502000 504000 506000 510000 512000 514000 516000 518000	463526 465244 466961 468678 470393 472107 473821 475533 477244 478954	8.423 8.418 8.413 8.408 8.403 8.398 8.394 8.389	1.329 -11 1.295 1.261 1.229 1.197 1.166 1.136 1.107 1.079	82447. 82611. 82775. 82940. 83104. 83269. 83434. 83598. 83764.	5.294 +13 5.169 5.046 4.927 4.811 4.698 4.587 4.480 4.375 4.272	1330.2 1331.1 1332.1 1333.0 1333.9 1334.9 1335.8 1336.7 1337.7	4.168 - 2 4.072 3.979 3.888 3.799 3.712 3.627 3.544 3.464 3.385	3.191 + 4 3.269 3.348 3.429 3.512 3.596 3.683 3.771 3.862 3.955	17.94 17.91 17.88 17.85 17.82 17.79 17.76 17.74 17.71
52000 522000 524000 526000 528000 532000 534000 536000 538000	480664 482372 484079 485786 487491 489195 490899 492601 494303 496003	8.379 8.374 8.369 8.364 8.355 8.355 8.350 8.345 8.340 8.335	1.025 -11 9.987 -12 9.734 9.487 9.248 9.015 8.788 8.567 8.352 8.143	84094. 84260. 84425. 84591. 84757. 84923. 85089. 85256. 85422. 8589.	4.172 +13 4.075 3.980 3.887 3.796 3.708 3.622 3.538 3.456 3.376	1339.5 1340.4 1341.4 1342.3 1343.2 1344.1 1345.1 1346.0 1346.9	3.308 - 2 3.233 3.160 3.088 3.018 2.950 2.884 2.819 2.755 2.693	4.049 + 4 4.146 4.245 4.347 4.450 4.556 4.664 4.775 4.888 5.004	17.65 17.63 17.60 17.58 17.55 17.52 17.50 17.48 17.45
54000 542000 544000 546000 550000 552000 554000 556000	497702 499401 501098 502795 504490 506185 507878 509571 511262 512953	8.330 8.325 8.321 8.316 8.311 8.306 8.301 8.297 8.292 8.287	7.940 -12 7.742 7.549 7.362 7.179 7.002 6.829 6.660 6.497 6.337	85756. 85923. 86090. 86258. 86425. 86593. 86761. 86928. 87097.	3.298 +13 3.222 3.148 3.075 3.005 2.936 2.868 2.803 2.739 2.676	1348.8 1349.7 1350.6 1351.5 1352.4 1353.4 1354.3 1355.2 1356.1	2.633 - 2 2.574 2.516 2.460 2.405 2.352 2.299 2.248 2.198 2.198	5.122 + 4 5.243 5.367 5.493 5.623 5.755 5.890 6.028 6.169 6.313	17.40 17.38 17.36 17.34 17.31 17.29 17.27 17.25 17.25
560000 562000 564000 566000 570000 572000 574000 576000 578000	514642 516331 518018 519705 521391 523075 524759 526442 528124 529805	8.282 8.277 8.273 8.268 8.263 8.258 8.258 8.253 8.249 8.244 8.239	6.182 -12 6.030 5.883 5.740 5.600 5.464 5.331 5.202 5.077	87433. 87602. 87770. 87939. 88108. 88277. 88447. 88616. 88786.	2.615 +13 2.556 2.497 2.441 2.385 2.331 2.278 2.227 2.177 2.128	1357.9 1358.9 1359.8 1360.7 1361.6 1362.5 1363.4 1364.3 1365.2	2.102 - 2 2.055 2.010 1.966 1.922 1.880 1.839 1.798 1.759	6.460 + 4 6.611 6.765 6.922 7.083 7.247 7.415 7.586 7.761 7.940	17.19 17.17 17.15 17.13 17.11 17.09 17.07 17.06 17.04 17.02
580000 582000 584000 586000 598000 592000 594000 596000 598000	531484 533163 534841 536518 538194 538194 541543 541543 543216 544888 546559	8.234 8.230 8.225 8.220 8.215 8.211 8.206 8.201 8.196 8.192	4.835 -12 4.719 4.605 4.495 4.388 4.283 4.181 4.082 3.985 3.890	89125. 89295. 89466. 89436. 89806. 89977. 90148. 90319. 90490.	2.080 +13 2.033 1.987 1.943 1.899 1.857 1.816 1.775 1.736	1367.1 1368.0 1368.9 1369.8 1370.7 1371.6 1372.5 1373.4 1374.3	1.683 - 2 1.646 1.610 1.575 1.541 1.508 1.475 1.443 1.412	8.123 + 4 8.310 8.501 8.696 8.895 9.098 9.306 9.518 9.734 9.956	17.00 16.98 16.97 16.95 16.93 16.92 16.90 16.89 16.87
600000 602000 604000 606000 610000 612000 614000 616000 618000	548230 549899 551567 553234 554901 556566 558230 559894 561556 563218	8.187 8.182 8.178 8.173 8.168 8.164 8.159 8.154 8.149	3.798 -12 3.710 3.625 3.5541 3.859 3.380 3.302 3.226 3.152 3.080	90833. 90962. 91092. 91221. 91351. 91481. 91611. 91741. 91871.	1.659 +13 1.623 1.588 1.554 1.520 1.487 1.455 1.424 1.393 1.363	1376.1 1376.7 1377.3 1377.9 1378.5 1379.0 1379.6 1380.2 1380.8 1381.4	1.352 - 2 1.323 1.295 1.267 1.240 1.214 1.188 1.163 1.139	1.018 + 5 1.041 1.064 1.087 1.111 1.136 1.161 1.187 1.213 1.239	16.84 16.82 16.81 16.79 16.78 16.76 16.75 16.74 16.72
620000 622000 624000 626000 630000 630000 634000 636000 638000	564879 566538 568197 569855 571511 573167 574822 576476 578129 579781	8.140 8.135 8.131 8.126 8.121 8.117 8.112 8.108 8.103 8.098	3.009 -12 2.941 2.874 2.808 2.744 2.682 2.621 2.562 2.504 2.447	92132. 92263. 92393. 92524. 92655. 92786. 92917. 93048. 93179.	1.334 +13 1.305 1.277 1.250 1.223 1.197 1.171 1.146 1.122	1381.9 1382.5 1383.1 1383.7 1384.3 1384.9 1385.4 1386.0 1386.6	1.091 - 2 1.068 1.046 1.024 1.002 9.811 - 3 9.606 9.405 9.208 9.016	1.267 + 5 1.294 1.323 1.352 1.381 1.412 1.442 1.444 1.506 1.539	16.69 16.68 16.67 16.65 16.64 16.63 16.61 16.60 16.59
640000 642000 644000 646000 648000 650000 652000 654000 658000	581432 583082 584732 586380 588027 589674 591319 592964 594607 596250	8.094 8.089 8.084 8.080 8.075 8.070 8.066 8.061 8.057 8.052	2.392 -12 2.338 2.285 2.234 2.184 2.135 2.087 2.040 1.995	93442. 93574. 93705. 93837. 93969. 94101. 94233. 94365. 944630.	1.075 +13 1.052 1.030 1.008 9.866 +12 9.658 9.455 9.256 9.061 8.871	1387.8 1388.3 1388.9 1389.5 1390.1 1390.6 1391.2 1391.8 1392.4 1393.0	8.828 - 3 8.645 8.465 8.290 8.118 7.950 7.786 7.625 7.468 7.314	1.572 + 5 1.606 1.641 1.676 1.712 1.749 1.787 1.825 1.865 1.904	16.56 16.55 16.53 16.52 16.51 16.50 16.48 16.47 16.46

Altitude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
Z, m H, n	gravity g,msec ⁻²	weight ω,kg m²sec²	height H _P , m	n, m ⁻³	∇, m sec ⁻¹		L, m	M
660000 59789 662000 59953 664000 60117 666000 60281 668000 60444 670000 60608 672000 60772 674000 61099 678000 61262	2 8.043 2 8.038 1 8.034 9 8.029 8.025 2 8.020 7 8.015	1.907 -12 1.865 1.823 1.783 1.743 1.705 1.667 1.6630 1.594 1.559	94762. 94895. 95028. 95161. 95294. 95427. 955603. 95826. 95960.	8.685 +12 8.504 8.326 8.152 7.982 7.816 7.654 7.495 7.340 7.189	1393.5 1394.1 1394.7 1395.3 1395.8 1396.4 1397.0 1397.6 1398.1	7.164 - 3 7.017 6.873 6.733 6.595 6.461 6.329 6.200 6.075 5.951	1.945 + 5 1.987 2.029 2.072 2.116 2.161 2.207 2.254 2.350	16.43 16.42 16.41 16.39 16.38 16.37 16.35 16.33 16.33
680000 61425 682000 61588 684000 61751 686000 62077 690000 62240 692000 62403 694000 62565 696000 62728 698000 62890	7.997 7.993 7.988 7.984 7.979 2.7.979 3.7.970	1.525 -12 1.492 1.457 1.396 1.365 1.335 1.335 1.336	96093. 96227. 96361. 96495. 96629. 96763. 96897. 97031. 97166.	7.040 +12 6.895 6.753 6.615 6.479 6.347 6.217 6.090 5.966 5.845	1399.3 1399.9 1400.4 1401.0 1401.6 1402.2 1402.7 1403.3 1403.9 1404.5	5.831 - 3 5.713 5.598 5.485 5.375 5.267 5.162 5.058 4.958	2.400 + 5 2.450 2.502 2.554 2.608 2.662 2.718 2.774 2.832 2.891	16.30 16.29 16.28 16.26 16.25 16.24 16.22 16.21 16.20 16.18
700000 63053	7.956	1.223 -12	97435.	5.726 +12	1405.0	4.762 - 3	2.950 + 5	16.17

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 $\begin{array}{c} \text{TABLE III} \\ \text{GEOPOTENTIAL ALTITUDE, METRIC UNITS} \end{array}$

Altitude		Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal co	onductivity
H, m	Z, m	C _S ,	μ, kg m ⁻¹ sec ⁻¹	$\frac{\mu}{\mu_0}$	η, m² sec- ¹	$\frac{\eta}{\eta_{o}}$	k, k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k k _o
-5000 -4950 -4900 -4850 -4800 -4750 -4650 -4650 -4550	-4996 -4946 -4896 -4846 -4796 -4746 -4647 -4647 -4547	358.972 358.790 358.608 358.426 358.244 358.061 357.879 357.696 357.514 357.331	1.9421 - 5 1.9406 1.9391 1.9377 1.9362 1.9347 1.9332 1.9317 1.9302 1.9287	1.08536 + 0 1.08453 1.08370 1.08286 1.08203 1.08120 1.08036 1.07953 1.07869	1.0060 - 5 1.0096 1.0132 1.0168 1.0204 1.0221 1.0277 1.0314 1.0351	6.88727 - 1 6.91175 6.93635 6.96106 6.98588 7.01081 7.03586 7.06102 7.08629 7.11168	6.6540 - 6 6.6481 6.6422 6.6362 6.6303 6.6244 6.6185 6.6126 6.6066 6.6007	1.09928 + 0 1.09831 1.09733 1.09635 1.09635 1.09439 1.09439 1.09342 1.09244 1.09146 1.09048
-4500 -4450 -4400 -4350 -4350 -4250 -4200 -4150 -4100 -4050	-4497 -4447 -4397 -4347 -4297 -4247 -4197 -4147 -4097 -4047	357.148 356.965 356.782 356.599 356.416 356.233 356.049 355.866 355.682 355.499	1.9272 - 5 1.9257 1.9242 1.9227 1.9212 1.9197 1.9182 1.9167 1.9152	1.07702 + 0 1.07619 1.07535 1.07451 1.07367 1.07284 1.07200 1.07116 1.07032 1.06948	1.0425 - 5 1.0463 1.0500 1.0538 1.0576 1.0614 1.0653 1.0691 1.0730	7.13718 - 1 7.16280 7.18854 7.21439 7.24037 7.26646 7.29267 7.31900 7.34546 7.37203	6.5948 - 6 6.5888 6.5829 6.5770 6.5710 6.5651 6.5591 6.5532 6.5472 6.5413	1.08950 + 0 1.08852 1.08754 1.08656 1.08557 1.08459 1.08361 1.08263 1.08165
-4000 -3950 -3900 -3850 -3850 -3750 -3750 -3650 -3550	-3997 -3948 -3898 -3848 -3798 -3748 -3698 -3648 -3598 -3548	355.315 355.131 354.947 354.763 354.579 354.395 354.210 354.026 353.841 353.657	1.9122 - 5 1.9107 1.9092 1.9077 1.9062 1.9047 1.9032 1.9017 1.9002 1.8986	1.06864 + 0 1.06780 1.06696 1.06612 1.06528 1.06443 1.06359 1.06275 1.06190 1.06106	1.0807 - 5 1.0847 1.0886 1.0926 1.0965 1.1005 1.1045 1.1086 1.1126	7.39873 - 1 7.42555 7.45249 7.47956 7.50675 7.53407 7.56151 7.58909 7.61679 7.64461	6.5353 - 6 6.5294 6.5234 6.5175 6.5115 6.5055 6.4996 6.4936 6.4877 6.4817	1.07968 + 0 1.07870 1.07771 1.07673 1.07574 1.07476 1.07377 1.07279 1.07180 1.07082
-3500 -3450 -3400 -3350 -3350 -3250 -3200 -3150 -3100 -3050	-3498 -3448 -3398 -3348 -3298 -3248 -3148 -3148 -3098 -3049	353.472 353.287 353.102 352.917 352.732 352.547 352.362 352.177 351.991 351.805	1.8971 - 5 1.8956 1.8941 1.8926 1.8911 1.8896 1.8880 1.8865 1.8850	1.06022 + 0 1.05937 1.05853 1.05768 1.05583 1.05599 1.05514 1.05429 1.05345 1.05345	1.1207 - 5 1.1249 1.1290 1.1331 1.1373 1.1415 1.1457 1.1499 1.1541 1.1584	7.67257 - 1 7.70066 7.72888 7.75723 7.78571 7.81433 7.84307 7.87196 7.90098 7.93013	6.4757 - 6 6.4697 6.4638 6.4578 6.4518 6.4458 6.4399 6.4399 6.4279 6.4219	1.06983 + 0 1.06884 1.06786 1.06687 1.06588 1.06489 1.06391 1.06292 1.06193 1.06094
-3000 -2950 -2950 -2850 -2850 -2750 -2750 -2650 -2650 -2550	-2999 -2949 -2899 -2849 -2799 -2749 -2649 -2599 -2549	351.620 351.434 351.248 351.062 350.876 350.690 350.504 350.317 350.131 349.944	1.8820 - 5 1.8805 1.8789 1.8774 1.8759 1.8744 1.8728 1.8713 1.8698 1.8683	1.05175 + 0 1.05090 1.05095 1.04920 1.04835 1.04750 1.04665 1.04580 1.04494	1.1626 - 5 1.1669 1.1713 1.1756 1.1800 1.1843 1.1887 1.1932 1.1976	7.95942 - 1 7.98885 8.01842 8.04812 8.07797 8.10796 8.13809 8.16836 8.19877 8.22933	6.4159 - 6 6.4099 6.4039 6.3979 6.3919 6.3859 6.3799 6.3739 6.3679 6.3619	1.05995 + 0 1.05896 1.05797 1.05698 1.05599 1.05500 1.05401 1.05301 1.05202 1.05103
-2500 -2450 -2400 -2350 -2350 -2250 -2250 -2150 -2100 -2050	-2499 -2449 -2399 -2349 -2299 -2249 -2149 -2149 -2049	349.758 349.571 349.384 349.197 349.010 348.823 348.636 348.448 348.261 348.261	1.8667 - 5 1.8652 1.8637 1.8622 1.8606 1.8591 1.8576 1.8560 1.8545	1.04324 + 0 1.04238 1.04153 1.04068 1.03982 1.03897 1.03811 1.03725 1.03640 1.03554	1.2066 - 5 1.2111 1.2156 1.2201 1.2247 1.2293 1.2339 1.2339 1.2386 1.2432	8.26003 - 1 8.29088 8.32188 8.35302 8.38431 8.41575 8.44734 8.47709 8.51098	6.3559 - 6 6.3499 6.3439 6.3379 6.3319 6.3258 6.3198 6.3138 6.3078 6.3018	1.05004 + 0 1.04905 1.04805 1.04706 1.04606 1.04507 1.04408 1.04308 1.04209 1.04109
-2000 -1950 -1960 -1860 -1860 -1750 -1760 -1650 -1650	-1999 -1949 -1899 -1849 -1799 -1750 -1760 -1650 -1650	347.885 347.698 347.510 347.322 347.134 346.946 346.757 346.569 346.380 346.192	1.8514 - 5 1.8499 1.8484 1.8453 1.8438 1.8422 1.8407 1.8391 1.8376	1.03468 + 0 1.03382 1.03296 1.03211 1.03125 1.03039 1.02953 1.02867 1.02780 1.02694	1.2526 - 5 1.2573 1.2621 1.2668 1.2716 1.2765 1.2813 1.2862 1.2910 1.2960	8.57522 - 1 8.60757 8.64008 8.67275 8.70557 8.73855 8.77169 8.80498 8.83844 8.87207	6.2957 - 6 6.2897 6.2837 6.2776 6.2716 6.2556 6.2595 6.2535 6.2474 6.2414	1.04009 + 0 1.03910 1.03810 1.03711 1.03611 1.03511 1.03811 1.03311 1.03212
-1500 -1450 -1400 -1350 -1300 -1250 -1200 -1150 -1100 -1050	-1500 -1450 -1400 -1350 -1300 -1250 -1200 -1150 -1100 -1050	346.003 345.814 345.626 345.437 345.247 345.058 344.869 344.680 344.680 344.300	1.8360 - 5 1.8345 1.8330 1.8314 1.8229 1.8283 1.8268 1.8252 1.0237	1.02608 + 0 1.02522 1.02435 1.02349 1.02263 1.02176 1.02090 1.02003 1.01917 1.01830	1.3009 - 5 1.3059 1.3108 1.3158 1.3209 1.3259 1.3310 1.3361 1.3464	8.90585 - 1 8.93980 8.97391 9.00818 9.04263 9.07724 9.11202 9.14697 9.18209 9.21738	6.2353 - 6 6.2293 6.2232 6.2172 6.2111 6.2051 6.1990 6.1930 6.1869 6.1808	1.03012 + 0 1.02912 1.02812 1.02712 1.02612 1.02512 1.02512 1.02312 1.02212 1.02211

Table III

SOUND SPEED, COEFFICIENT OF VISCOSITY, KINEMATIC VISCOSITY, AND THERMAL CONDUCTIVITY

Metric Units

Note: A one- or two-digit number (preceded by a plus or minus sign) following the initial entry of each block indicates the power of ten by which that entry and each succeeding entry of that block should be multiplied. A change of power occurring within a block is indicated by a similar notation.

 $\begin{array}{ccc} & \text{TABLE } & \text{III} \\ \text{GEOMETRIC } & \text{ALTITUDE, METRIC UNITS} \end{array}$

Altitude Sound				of viscosity	Kinematic		Thermal conductivity		
Ailii	uae I	speed	Coefficient	of viscosity	Amemoric		Thermar C		
Z, m 	H, m	C _S ,	μ, kg m ⁻¹ sec ⁻¹	$\frac{\mu}{\mu_0}$	η, m² sec-'	$\frac{\eta}{\eta_{o}}$	k, k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	<u>k</u> k _o	
-5000 -4950 -4950 -4850 -4800 -4750 -4750 -4600 -4550	-5004 -4954 -4954 -4854 -4804 -4754 -4703 -4603 -4603	358.986 358.804 358.622 358.439 358.257 358.074 357.891 357.709 357.526 357.343	1.9422 - 5 1.9407 1.9393 1.9378 1.9363 1.9348 1.9333 1.9318 1.9303 1.9288	1.08543 + 0 1.08459 1.08376 1.08293 1.08209 1.08126 1.08042 1.07958 1.07875	1.0058 - 5 1.0093 1.0129 1.0165 1.0202 1.0238 1.0275 1.0312 1.0349	6.88534 - 1 6.90986 6.93449 6.95922 6.98407 7.00904 7.03411 7.05930 7.08460 7.11002	6.65%5 - 6 6.6%85 6.6%26 6.6367 6.6308 6.62%8 6.6189 6.6130 6.6070 6.6071	1.09936 + 0 1.09838 1.09740 1.09642 1.09544 1.09348 1.09350 1.09152	
-4500 -4450 -4400 -4350 -4350 -4250 -4250 -4150 -4150 -4050	-4503 -4453 -4403 -4353 -4303 -4253 -4203 -4153 -4103 -4053	357.160 356.977 356.793 356.610 356.427 356.243 356.059 355.876 355.692 355.508	1.9273 - 5 1.9258 1.9243 1.9228 1.9213 1.9198 1.9183 1.9168 1.9153	1.07708 + 0 1.0762h 1.07540 1.07456 1.07372 1.07288 1.07204 1.07120 1.07036 1.06952	1.0423 - 5 1.0461 1.0498 1.0536 1.0574 1.0612 1.0650 1.0689 1.0728	7.13555 - 1 7.16120 7.18697 7.21285 7.23885 7.26497 7.29121 7.31757 7.34405 7.37066	6.5951 - 6 6.5892 6.5833 6.5773 6.5714 6.5654 6.5595 6.5535 6.5475 6.5416	1.08956 + 0 1.08858 1.08760 1.08661 1.08563 1.08465 1.08366 1.08268 1.08170	
-4000 -3950 -3900 -3850 -3800 -3750 -3750 -3650 -3650 -3550	-4003 -3952 -3902 -3852 -3802 -3752 -3702 -3652 -3602 -3552	355.324 355.140 354.956 354.772 354.587 354.403 354.218 354.034 353.849 353.664	1.9123 - 5 1.9108 1.9093 1.9078 1.9063 1.9047 1.9032 1.9017 1.9002 1.8987	1.06868 + 0 1.06784 1.06700 1.06616 1.06531 1.06447 1.06363 1.06278 1.06194 1.06109	1.0806 - 5 1.0845 1.0884 1.0924 1.0963 1.1003 1.1044 1.1084 1.1124	7.39738 - 1 7.42423 7.45120 7.47829 7.50551 7.53286 7.56033 7.58793 7.61565 7.64351	6.5356 - 6 6.5297 6.5237 6.5177 6.5118 6.5058 6.4998 6.4939 6.4879 6.4819	1.07973 + 0 1.07874 1.07776 1.07677 1.07579 1.07480 1.07382 1.07283 1.07184 1.07086	
-3500 -3450 -3400 -3350 -3350 -3250 -3250 -3150 -3100 -3050	-3502 -3452 -3402 -3352 -3302 -3252 -3202 -3152 -3102 -3051	353.479 353.294 353.109 352.924 352.739 352.553 352.368 352.182 351.997 351.811	1.8972 - 5 1.8957 1.8942 1.8926 1.8911 1.8896 1.8881 1.8851 1.8851	1.06025 + 0 1.059%0 1.05856 1.05771 1.05686 1.05502 1.05517 1.05532 1.053%7 1.05262	1.1206 - 5 1.1247 1.1288 1.1330 1.1371 1.1413 1.1455 1.1497 1.1540	7.67149 - 1 7.69960 7.72785 7.75622 7.78473 7.81337 7.84214 7.87105 7.90010 7.92927	6.4759 - 6 6.4700 6.4640 6.4580 6.4520 6.4460 6.4581 6.4221	1.06987 + 0 1.06888 1.06789 1.06690 1.06592 1.06493 1.06394 1.06295 1.06196	
-3000 -2950 -2900 -2850 -2850 -2750 -2700 -2650 -2650 -2550	-3001 -2951 -2901 -2851 -2801 -2751 -2701 -2651 -2601 -2551	351.625 351.439 351.253 351.067 350.881 350.694 350.508 350.321 350.135 349.948	1.8820 - 5 1.8805 1.8770 1.8775 1.8759 1.8744 1.8729 1.8714 1.8698 1.8683	1.05177 + 0 1.05092 1.05007 1.04922 1.04837 1.04752 1.04667 1.04581 1.04496	1.1625 - 5 1.1668 1.1712 1.1755 1.1759 1.1842 1.1886 1.1931 1.1975	7.95859 - 1 7.98804 8.01763 8.04736 8.07723 8.10724 8.13739 8.10769 8.19812 8.22870	6.4161 - 6 6.4101 6.4041 6.3981 6.3921 6.3861 6.3861 6.3741 6.3681 6.3620	1.05998 + 0 1.05899 1.05800 1.05701 1.05501 1.05502 1.05403 1.05304 1.05204	
-2500 -2450 -2400 -2350 -2350 -2250 -2250 -2150 -2100 -2050	-2501 -2451 -2401 -2351 -2301 -2251 -2201 -2151 -2101 -2051	349.761 349.574 349.387 349.200 349.013 348.826 348.638 348.451 348.263 348.263	1.8668 - 5 1.8652 1.8637 1.8622 1.8607 1.8591 1.8576 1.8561 1.8545	1.04325 + 0 1.04240 1.04155 1.04069 1.03983 1.03898 1.03812 1.03727 1.03641 1.03555	1.2065 - 5 1.2110 1.2155 1.2201 1.2246 1.2292 1.2338 1.2385 1.2478	8.25943 - 1 8.29030 8.32132 8.35248 8.358379 8.41525 8.44686 8.47862 8.51053 8.54260	6.3560 - 6 6.3500 6.3440 6.3380 6.3320 6.3259 6.3159 6.3139 6.3079 6.3018	1.05006 + 0 1.04906 1.04907 1.04708 1.04509 1.04509 1.04310 1.04210 1.04110	
-2000 -1950 -1900 -1850 -1800 -1750 -1700 -1650 -1600 -1550	-2001 -1951 -1901 -1851 -1801 -1750 -1700 -1650 -1600 -1550	347.888 347.700 347.512 347.324 347.136 346.947 346.759 346.759 346.571 346.382 346.193	1.8515 - 5 1.8499 1.8464 1.8468 1.8453 1.8438 1.8422 1.8407 1.8391	1.03469 + 0 1.03383 1.03297 1.03212 1.03126 1.03039 1.02953 1.02867 1.02781 1.02695	1.2525 - 5 1.2573 1.2620 1.2668 1.2716 1.2764 1.2813 1.2861 1.2910	8.57481 - 1 8.60719 8.63971 8.67239 8.70523 8.73823 8.731823 8.80470 8.83817 8.87181	6.2958 - 6 6.2898 6.2837 6.2777 6.2717 6.2656 6.2596 6.2535 6.2475 6.2475	1.04011 + 0 1.03911 1.03811 1.03712 1.03612 1.03512 1.03412 1.03312 1.03212	
-1500 -1450 -1400 -1350 -1300 -1250 -1200 -1150 -1100 -1050	-1500 -1450 -1400 -1350 -1300 -1250 -1200 -1150 -1100 -1050	346.005 345.816 345.627 345.438 345.059 344.870 344.680 344.491 344.301	1.8361 - 5 1.8345 1.8330 1.8314 1.8299 1.8283 1.8268 1.8252 1.8252	1.02609 + 0 1.02522 1.02436 1.02350 1.02277 1.02177 1.02090 1.02004 1.01917 1.01830	1.3009 - 5 1.3058 1.3108 1.3158 1.3259 1.3259 1.3310 1.3361 1.3412	8.90561 - 1 8.93957 8.97370 9.00799 9.04244 9.07707 9.11186 9.14682 9.18195 9.21726	6.2354 - 6 6.2293 6.2233 6.2172 6.2112 6.2051 6.1990 6.1930 6.1869 6.1809	1.03013 + 0 1.02913 1.02813 1.02713 1.02613 1.02512 1.02412 1.02312 1.02312 1.02112	
	<u> </u>								

TABLE III — Continued

GEOPOTENTIAL ALTITUDE, METRIC UNITS

Altit	Altitude		Coefficient	of viscosity	Kinematic	viscosity	Thermal conductivity		
H, m	Z, m	C _S , m sec⁻¹	μ, kg m ⁻¹ sec ⁻¹	$\frac{\mu}{\mu_0}$	η, m² sec-1	$\frac{\eta}{\eta_0}$	k, k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k k _o	
-1000 -950 -900 -850 -800 -750 -700 -650 -650	-1000 -950 -900 -850 -800 -750 -700 -650 -600 -550	344.111 343.921 343.731 343.541 343.351 343.160 342.970 342.780 342.589 342.398	1.8206 - 5 1.8190 1.8175 1.8159 1.8144 1.8128 1.8113 1.8097 1.8081 1.8066	1.01743 + 0 1.01657 1.01570 1.01483 1.01396 1.01309 1.01222 1.01135 1.01048 1.00961	1.3516 - 5 1.3568 1.3620 1.3673 1.3726 1.3779 1.3832 1.3886 1.3939	9.25284 - 1 9.28848 9.32429 9.36028 9.39644 9.43279 9.46931 9.50601 9.54289 9.57995	6.1748 - 6 6.1687 6.1626 6.1566 6.1505 6.1444 6.1383 6.1322 6.1262 6.1201	1.02011 + 0 1.01911 1.01811 1.01710 1.01610 1.01510 1.01409 1.01309 1.01208 1.01108	
-500 -450 -400 -350 -300 -250 -200 -150 -100	-500 -450 -400 -350 -300 -250 -200 -150 -100 -50	342.208 342.017 341.826 341.635 341.443 341.252 341.061 340.869 540.678 340.486	1.8050 - 5 1.8035 1.8019 1.8003 1.7988 1.7972 1.7956 1.7941 1.7925 1.7909	1.00874 + 0 1.00787 1.00700 1.00612 1.00525 1.00438 1.00350 1.00263 1.00175 1.00088	1.404B - 5 1.4103 1.415B 1.4213 1.426B 1.4324 1.4380 1.4437 1.4493	9.61720 - 1 9.65463 9.69225 9.73005 9.76804 9.80622 9.84459 9.88315 9.92190 9.96085	6.1140 - 6 6.1079 6.1018 6.0957 6.0896 6.0835 6.0774 6.0713 6.0652 6.0591	1.01007 + 0 1.00907 1.00806 1.00705 1.00605 1.00504 1.00403 1.00303 1.00202	
50 100 150 200 250 300 350 400 450	50 100 150 200 250 300 350 400 450	340.294 340.102 339.910 339.718 339.525 339.333 339.141 338.948 338.755 338.562	1.7894 - 5 1.7878 1.7862 1.7947 1.7831 1.7815 1.7800 1.7784 1.7768 1.7752	1.00000 + 0 9.99124 - 1 9.98246 9.97369 9.96491 9.95612 9.94733 9.93854 9.92974 9.92974	1.4607 - 5 1.4665 1.4722 1.4780 1.4839 1.4897 1.4956 1.5015 1.5075	1.00000 + 0 1.00393 + 0 1.00789 1.01186 1.01585 1.01986 1.02390 1.02795 1.03203 1.03612	6.0530 - 6 6.0469 6.0408 6.0347 6.0286 6.0225 6.0164 6.0102 6.0041 5.9980	1.00000 + 0 9.98991 - 1 9.97982 9.96972 9.95963 9.94952 9.93942 9.92931 9.91920 9.90908	
500 550 600 650 700 750 800 850 900	500 550 600 650 700 750 800 850 900 950	338.369 338.176 337.983 337.790 337.597 337.403 337.209 337.016 336.822 336.628	1.7737 - 5 1.7721 1.7705 1.7689 1.7673 1.7658 1.7642 1.7626 1.7610 1.7594	9.91213 - 1 9.90331 9.89449 9.88567 9.87684 9.86801 9.85917 9.85033 9.84148 9.83263	1.5195 - 5 1.5255 1.5316 1.5377 1.5438 1.5500 1.5562 1.5624 1.5687 1.5750	1.04024 + 0 1.04437 1.04853 1.05271 1.05690 1.06113 1.06537 1.06963 1.07392 1.07392	5.9919 - 6 5.9857 5.9776 5.9775 5.9674 5.9612 5.9551 5.9488 5.9428 5.9367	9.89896 - 1 9.88884 9.87872 9.86859 9.85846 9.84832 9.83818 9.82804 9.81790 9.80775	
1000 1050 1100 1150 1200 1250 1350 1400	1000 1050 1100 1150 1200 1250 1300 1350 1400 1450	336.434 336.240 336.045 335.851 335.657 335.462 335.267 335.072 334.877 334.682	1.7578 - 5 1.7563 1.7547 1.7531 1.7515 1.7499 1.7483 1.7467 1.7451	9.82377 - 1 9.81491 9.80604 9.79717 9.78829 9.77941 9.77052 9.76163 9.75273 9.74383	1.5813 - 5 1.5877 1.5940 1.6005 1.60069 1.6134 1.6199 1.6265 1.6331	1.08255 + 0 1.08690 1.09128 1.09567 1.10009 1.10453 1.10899 1.11348 1.11799 1.12252	5.9305 - 6 5.9244 5.9182 5.9121 5.9059 5.8998 5.8936 5.8875 5.8813 5.8751	9.79760 - 1 9.78745 9.77729 9.76713 9.75696 9.74680 9.73663 9.72645 9.71628 9.70610	
1500 1550 1600 1650 1700 1750 1800 1850 1900	1500 1550 1600 1650 1700 1750 1801 1851 1901	334.487 334.292 334.096 333.901 333.705 333.510 333.314 333.118 332.922 332.725	1.7419 - 5 1.7404 1.7388 1.7372 1.7355 1.7340 1.7324 1.7308 1.7292	9.73492 - 1 9.72601 9.71709 9.70817 9.69925 9.69932 9.68138 9.67244 9.66349 9.65454	1.6463 - 5 1.6530 1.6598 1.6665 1.6733 1.6801 1.6870 1.6939 1.7008	1.12708 + 0 1.13166 1.13626 1.14089 1.14554 1.15022 1.15492 1.15964 1.16439 1.16917	5.8690 - 6 5.8566 5.8566 5.8505 5.8443 5.8381 5.8319 5.8258 5.8196 5.8134	9.69591 - 1 9.68573 9.67554 9.66534 9.66515 9.64495 9.63474 9.62454 9.61433 9.60412	
2000 2050 2100 2150 2250 2250 2350 2400 2450	2001 2051 2101 2151 2201 2251 2301 2351 2401 2451	332.529 332.333 332.136 331.939 331.743 331.546 331.349 331.152 330.954 330.757	1.7260 - 5 1.7244 1.7228 1.7211 1.7195 1.7179 1.7163 1.7147 1.7131	9.64558 - 1 9.63662 9.62766 9.61868 9.60971 9.60073 9.59174 9.58275 9.57375 9.56475	1.7148 - 5 1.7219 1.7290 1.7361 1.7432 1.7504 1.7577 1.7649 1.7722	1.17396 + 0 1.17879 1.18364 1.18851 1.19341 1.19834 1.20329 1.20826 1.21327 1.21830	5.8072 - 6 5.8010 5.7948 5.7825 5.7763 5.7763 5.7639 5.7515	9.59390 - 1 9.58368 9.57346 9.56323 9.55300 9.54277 9.53253 9.52230 9.51205 9.50181	
2500 2550 2600 2650 2700 2750 2800 2850 2900 2950	2501 2551 2601 2651 2701 2751 2801 2851 2901 2951	330.559 330.362 330.164 329.966 329.768 329.570 329.372 329.174 328.975 328.777	1.7099 - 5 1.7083 1.7087 1.7050 1.7034 1.7018 1.7002 1.6986 1.6970	9.55574 - 1 9.54673 9.53771 9.52869 9.51966 9.51063 9.50159 9.49255 9.48350 9.47445	1.7870 - 5 1.7944 1.8019 1.8094 1.8169 1.8245 1.8221 1.8398 1.8475 1.8552	1.22335 + 0 1.22844 1.23355 1.23868 1.24385 1.24904 1.25426 1.25951 1.26478 1.27009	5.7453 - 6 5.7391 5.7329 5.7266 5.7204 5.7142 5.7080 5.7018 5.6956 5.6893	9.49156 - 1 9.48131 9.47105 9.46079 9.45053 9.44027 9.43000 9.41973 9.40945 9.39917	

Altit	lude	speed , speed		Thermal o	onductivity			
Z, m	H, m	C _S ,	μ ,	$\frac{\mu}{\mu_{o}}$	η, m² sec-'	$\frac{\eta}{\eta_0}$	k, k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k k _o
-1000 -950 -900 -850 -850 -750 -750 -650 -650 -550	-1000 -950 -950 -850 -850 -750 -700 -650 -600 -550	344.111 343.921 343.731 343.541 343.351 343.161 342.970 342.780 342.589 342.399	1.8206 - 5 1.8190 1.8175 1.8159 1.8144 1.8128 1.8113 1.8097 1.8081	1.0174% + 0 1.01657 1.01570 1.01483 1.01396 1.01309 1.01222 1.01135 1.01048 1.00961	1.3516 - 5 1.3568 1.3620 1.3673 1.3775 1.3779 1.3886 1.3939 1.3994	9.25273 - 1 9.28838 9.32420 9.36020 9.39637 9.43272 9.46925 9.50596 9.54285 9.57992	6.1748 - 6 6.1687 6.1626 6.1566 6.1505 6.1444 6.1383 6.1323 6.1262 6.1201	1.02011 + 0 1.01911 1.01811 1.01711 1.01610 1.01510 1.01409 1.01309 1.01208
-500 -450 -400 -350 -300 -250 -200 -150 -100 -50	-500 -450 -400 -350 -300 -250 -200 -150 -50	342.208 342.017 341.826 341.635 341.443 341.252 341.061 340.869 340.678 340.486	1.8050 - 5 1.8035 1.8019 1.8003 1.7978 1.7972 1.7956 1.7941 1.7925 1.7909	1.00874 + 0 1.00787 1.00700 1.00612 1.00525 1.00438 1.00350 1.00263 1.00263 1.00175 1.00088	1.4048 - 5 1.4103 1.4158 1.4213 1.4268 1.4324 1.4380 1.4437 1.4493 1.4550	9.61717 - 1 9.65461 9.69223 9.73004 9.76803 9.80622 9.84459 9.88315 9.92190 9.96085	6.1140 - 6 6.1079 6.1018 6.0957 6.0896 6.0835 6.0774 6.0713 6.0652 6.0591	1.01007 + 0 1.00907 1.00806 1.00705 1.00505 1.00504 1.00403 1.00403 1.00202
50 100 150 200 250 300 350 400	50 100 150 200 250 300 350 400 450	340.294 340.102 339.910 339.718 339.525 339.333 339.141 338.948 338.755 338.562	1.7894 - 5 1.7878 1.7862 1.7847 1.7831 1.7815 1.7800 1.7784 1.7768 1.7752	1.00000 + 0 9.99124 - 1 9.98246 9.97369 9.96491 9.95612 9.94734 9.93854 9.92974 9.92974	1.4607 - 5 1.4665 1.4722 1.4780 1.4839 1.4897 1.4956 1.5015 1.5075	1.00000 + 0 1.00393 + 0 1.00789 1.01186 1.01585 1.01986 1.02390 1.02795 1.03202 1.03612	6.0530 - 6 6.0469 6.0408 6.0347 6.0286 6.0225 6.0164 6.0102 6.0041 5.9980	1.00000 + 0 9.98991 - 1 9.97982 9.96973 9.95963 9.94952 9.93942 9.92931 9.91920 9.90909
500 550 600 650 700 750 800 850 900	500 550 600 650 700 750 800 850 900	338.370 338.177 337.983 337.790 337.597 337.403 337.210 337.016 336.822 336.629	1.7737 - 5 1.7721 1.7705 1.7689 1.7673 1.7658 1.7642 1.7642 1.7626 1.7610	9.91213 - 1 9.90332 9.89450 9.88568 9.87685 9.86802 9.85919 9.85035 9.84150 9.83265	1.5195 - 5 1.5255 1.5316 1.5377 1.5438 1.5500 1.5562 1.5624 1.5687	1.04023 + 0 1.04437 1.04852 1.05270 1.05690 1.06112 1.06582 1.06962 1.07390 1.07821	5.9919 - 6 5.9858 5.9796 5.9735 5.9674 5.9612 5.9551 5.9490 5.9428 5.9367	9.89897 - 1 9.88885 9.87873 9.86860 9.85847 9.84834 9.83820 9.82807 9.81792 9.80778
1000 1050 1100 1150 1200 1250 1300 1350 1400	1000 1050 1100 1150 1200 1250 1350 1400	336.435 336.240 336.046 335.852 335.657 335.463 335.268 335.074 334.879 334.684	1.7579 - 5 1.7563 1.7547 1.7531 1.7515 1.7499 1.7403 1.7467 1.7451 1.7436	9.82380 - 1 9.81494 9.80607 9.79720 9.78833 9.77945 9.77057 9.76168 9.75279 9.74389	1.5813 - 5 1.5876 1.5940 1.6004 1.6069 1.6134 1.6199 1.6264 1.6330	1.08254 + 0 1.08689 1.09126 1.09565 1.10007 1.10451 1.10897 1.11346 1.11796 1.12249	5.9305 - 6 5.9244 5.9182 5.9121 5.9159 5.8998 5.8936 5.8875 5.8813 5.8752	9.79763 - 1 9.78748 9.77733 9.76717 9.75701 9.74685 9.73668 9.72651 9.71634 9.70616
1500 1550 1600 1650 1700 1750 1800 1850 1900	1500 1550 1600 1650 1700 1750 1759 1849 1849	334.489 334.293 334.098 333.903 333.707 333.511 333.316 333.120 332.924 332.728	1.7420 - 5 1.7404 1.7388 1.7372 1.7356 1.7340 1.7324 1.7308 1.7292 1.7276	9.73499 - 1 9.72608 9.71717 9.70825 9.69933 9.69040 9.68147 9.67253 9.66359 9.66365	1.6463 - 5 1.6530 1.6597 1.6665 1.6733 1.6801 1.6869 1.6938 1.7008	1.12705 + 0 1.13163 1.13623 1.14085 1.14550 1.15017 1.15487 1.15959 1.16434 1.16911	5.8690 - 6 5.8628 5.8567 5.8505 5.8443 5.8382 5.8320 5.8258 5.8197 5.8135	9.69598 - 1 9.68580 9.67562 9.665543 9.65524 9.64504 9.63485 9.62465 9.62465
2000 2050 2100 2150 2200 2200 2350 2350 2400 2450	1999 2049 2099 2149 2199 2249 2299 2349 2349	332.532 332.335 332.139 331.942 331.746 331.549 331.352 331.155 330.958 330.761	1.7260 - 5 1.7244 1.7228 1.7212 1.7196 1.7180 1.7164 1.7147 1.7131	9.64570 - 1 9.63674 9.62778 9.61881 9.61984 9.60087 9.59189 9.58290 9.57391 9.56492	1.7147 - 5 1.7218 1.7289 1.7360 1.7431 1.7503 1.7575 1.7648 1.7721	1.17390 + 0 1.17872 1.18357 1.18844 1.19334 1.19826 1.20320 1.20818 1.21318 1.21318	5.8073 - 6 5.8011 5.7949 5.7887 5.7826 5.7764 5.7762 5.7640 5.7578 5.7516	9.59403 - 1 9.58382 9.57360 9.56338 9.55316 9.54293 9.53270 9.52247 9.51224 9.50200
2500 2550 2600 2650 2700 2750 2850 2950 2950	2499 2549 2599 2649 2699 2749 2799 2849 2899	330.563 330.366 330.168 329.971 329.773 329.575 329.377 329.179 328.980 328.782	1.7099 - 5 1.7083 1.7067 1.7051 1.7035 1.7019 1.7002 1.6986 1.6970	9.55592 - 1 9.54692 9.53791 9.52889 9.51987 9.51085 9.50182 9.49278 9.48374 9.47470	1.7868 - 5 1.7943 1.8017 1.8092 1.8167 1.8243 1.8319 1.8396 1.8473	1.22325 + 0 1.22833 1.23344 1.23857 1.24373 1.24892 1.25937 1.26464 1.26994	5.7454 - 6 5.7392 5.7330 5.7268 5.7206 5.7144 5.7082 5.7019 5.6957 5.6895	9.49176 - 1 9.48152 9.47127 9.46102 9.45077 9.44051 9.43025 9.41999 9.40972 9.39946

TABLE ${\rm III}$.— Continued GEOPOTENTIAL ALTITUDE, METRIC UNITS

Altit	ude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
H, m	Z, m	C _S , m sec ⁻¹	μ,	$\frac{\mu}{\mu_0}$	η, m² sec- ¹	$\frac{\eta}{\eta_{o}}$	k, k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k ko
3000 3050 3100 3150 3200 3250 3300 3350 3400 3450	3001 3051 3102 3152 3202 3252 3302 3352 3402 3452	328.578 328.379 328.180 327.981 327.782 327.583 327.383 327.184 326.984 326.784	1.6937 - 5 1.6921 1.6905 1.6889 1.6872 1.6856 1.6840 1.6823 1.6807	9.46539 - 1 9.45633 9.44726 9.43819 9.42911 9.42003 9.41094 9.40184 9.39274 9.38364	1.8630 - 5 1.8709 1.8787 1.8866 1.8946 1.9026 1.9106 1.9187 1.9269	1.27542 + 0 1.28078 1.28617 1.29158 1.29703 1.30251 1.30801 1.31355 1.31911 1.32471	5.6831 - 6 5.6769 5.6707 5.6644 5.6582 5.6520 5.6457 5.6395 5.6333 5.6270	9.38889 - 1 9.37861 9.36832 9.35803 9.34773 9.33744 9.32714 9.31683 9.30652 9.29621
3500 3550 3600 3650 3700 3750 3800 3850 3900 3950	3502 3552 3602 3652 3702 3752 3802 3852 3902 3952	326.584 326.384 326.184 325.984 325.784 325.583 325.382 325.182 324.981 324.780	1.6775 - 5 1.6758 1.6742 1.6726 1.6709 1.6693 1.6677 1.6660 1.6644 1.6627	9.37453 - 1 9.36542 9.35630 9.34717 9.33804 9.32890 9.31976 9.31062 9.30146 9.29231	1.9432 - 5 1.9515 1.9598 1.9682 1.9766 1.9850 1.9935 2.0020 2.0106 2.0192	1.33033 + 0 1.33599 1.34167 1.34739 1.35314 1.35891 1.36472 1.37057 1.37644 1.38235	5.6208 - 6 5.6145 5.6083 5.6020 5.5958 5.5895 5.5893 5.5770 5.5708 5.5645	9.28590 - 1 9.27558 9.26526 9.25494 9.24461 9.23428 9.22394 9.21361 9.20327 9.19292
4000 4050 4100 4150 4200 4250 4350 4400 4450	4003 4053 4103 4153 4203 4253 4353 4353 4403 4453	324.579 324.377 324.176 323.974 523.773 323.571 323.369 323.167 322.965 322.763	1.6611 - 5 1.6595 1.6578 1.6562 1.6545 1.6529 1.6513 1.6496 1.6480 1.6463	9.28315 - 1 9.27398 9.26481 9.25563 9.24644 9.23726 9.22806 9.21886 9.20966 9.20045	2.0279 - 5 2.0366 2.0454 2.0542 2.0631 2.0720 2.0809 2.0990 2.0990	1.38828 + 0 1.39425 1.40626 1.40629 1.41236 1.41847 1.42467 1.43698 1.44321	5.5582 - 6 5.5520 5.5457 5.5374 5.5332 5.5269 5.5206 5.5143 5.5081 5.5018	9.18258 - 1 9.17223 9.16187 9.15151 9.14115 9.13079 9.12042 9.11005 9.09968 9.08930
4500 4550 4650 4700 4750 4750 4800 4850 4900	4503 4553 4603 4653 4703 4754 4854 4854 4904	322.560 322.358 322.155 321.952 321.749 321.546 321.343 321.140 320.937 320.733	1.6447 - 5 1.6430 1.6414 1.6397 1.6381 1.6364 1.6331 1.63314 1.6298	9.19123 - 1 9.18201 9.17278 9.16355 9.15432 9.14507 9.13583 9.12657 9.11731 9.10805	2.1173 - 5 2.1265 2.1358 2.1451 2.1545 2.1639 2.1733 2.1829 2.1925 2.2021	1.44949 + 0 1.45580 1.46214 1.46852 1.47493 1.48138 1.48786 1.49438 1.50094 1.50753	5.4955 - 6 5.4892 5.4829 5.4766 5.4703 5.4641 5.4578 5.4515 5.4452 5.4389	9.07892 - 1 9.06854 9.05815 9.04776 9.03737 9.02697 9.01657 9.00617 8.99576 8.98536
5000 5050 5100 5150 5200 5250 5350 5350 5400 5450	5004 5054 5104 5154 5204 5254 5305 5455	320.529 320.326 320.122 319.918 319.713 319.509 319.305 319.100 318.895 318.690	1.6281 - 5 1.6265 1.6248 1.6231 1.6215 1.6198 1.6181 1.6165 1.6148	9.09878 - 1 9.08951 9.08023 9.07094 9.06165 9.05235 9.04305 9.03374 9.02443 9.01511	2.2118 - 5 2.2215 2.2313 2.2412 2.2511 2.2610 2.2710 2.2811 2.2912 2.3014	1.51416 + 0 1.52083 1.52754 1.53428 1.54106 1.54788 1.55474 1.56163 1.56857 1.57554	5.4326 - 6 5.4263 5.4199 5.4136 5.4073 5.4010 5.3947 5.3884 5.3821 5.3757	8.97494 - 1 8.96453 8.95411 8.94368 8.93326 8.92283 8.91240 8.90196 8.89152 8.88108
5500 5550 5600 5650 5700 5750 5800 5850 5900 5950	5505 5555 5605 5655 5705 5755 5805 5855 5855 5855 5855	318.485 318.280 318.075 317.870 317.664 317.459 317.253 317.047 316.6841 316.635	1.6115 - 5 1.6098 1.6081 1.6065 1.6048 1.6031 1.6014 1.5998 1.5981	9.00579 - 1 8.99646 8.98712 8.97778 8.96844 8.95908 8.94973 8.94036 8.93100 8.92162	2.3117 - 5 2.3220 2.3323 2.3428 2.3532 2.3638 2.3744 2.3850 2.3758 2.4065	1.58256 + 0 1.58961 1.59670 1.60384 1.61101 1.61823 1.62548 1.63278 1.64012 1.640750	5.3694 - 6 5.3631 5.3568 5.3504 5.3441 5.3378 5.3314 5.33251 5.3188 5.3124	8.87063 - 1 8.86018 8.84973 8.83927 8.82881 8.81835 8.807789 8.79742 8.79742 8.78694 8.77647
6000 6050 6100 6150 6250 6250 6350 6400 6450	6006 6056 6106 6156 6206 6256 6306 6356 6406 6457	316.428 316.222 316.015 315.809 315.602 315.395 315.188 314.980 314.773 314.565	1.5947 - 5 1.5931 1.5914 1.5897 1.5880 1.5863 1.5846 1.5830 1.5813	8.91224 - 1 8.90286 8.89347 8.88407 8.87467 8.86526 8.85585 8.84643 8.83700 8.82757	2.4174 - 5 2.4283 2.4393 2.4503 2.4614 2.4725 2.4838 2.4951 2.5064 2.5178	1.65492 + 0 1.66239 1.66990 1.67745 1.68505 1.69269 1.70037 1.70810 1.71588 1.72369	5.3061 - 6 5.2997 5.2934 5.2807 5.2807 5.2743 5.2680 5.2616 5.2553 5.2489	8.76599 - 1 8.75551 8.74502 8.73453 8.72404 8.71355 8.70305 8.69255 8.68204 8.67153
6500 6550 6600 6650 6700 6750 6800 6850 6900 6950	6507 6557 6607 6657 6707 6757 6857 6857 6907	314.358 314.150 313.942 313.734 313.526 513.317 313.109 312.691 312.482	1.5779 - 5 1.5762 1.5745 1.5728 1.5711 1.5694 1.5677 1.5661 1.5644 1.5627	8.81814 - 1 8.80870 8.79925 8.78983 8.78034 8.77087 8.76140 8.75193 8.74245 8.73296	2.5293 - 5 2.5409 2.5525 2.5642 2.5759 2.5878 2.5997 2.6116 2.6237 2.6358	1.73156 + 0 1.73947 1.74742 1.75542 1.76347 1.77157 1.77971 1.78790 1.79614 1.80443	5.2425 - 6 5.2362 5.2298 5.2234 5.2171 5.2107 5.2043 5.1979 5.1916 5.1852	8.66102 - 1 8.65050 8.63999 8.62946 8.61894 8.60841 8.59788 8.58734 8.57680 8.56626

			GEO	METRIC ALIT	ODE, METRIC	J UNITS		
Altit	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	conductivity
Z, m	H, m	C _S ,	$\mu,$ kg m $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_{o}}$	η, m² sec-'	$\frac{\eta}{\eta_0}$	k, k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k k _o
3000 3050 3100 3150 3200 3250 3300 3350 3400 3450	2999 3049 3098 3148 3198 3248 3298 3348 3348	328.583 328.385 328.186 327.987 327.788 327.589 327.390 327.191 326.991 326.792	1.6938 - 5 1.6921 1.6905 1.6889 1.6873 1.6857 1.6840 1.6824 1.6808	9.46565 - 1 9.45660 9.44754 9.43847 9.42940 9.42033 9.41125 9.40217 9.39308 9.38398	1.8628 - 5 1.8706 1.8785 1.8864 1.8943 1.9023 1.9104 1.9184 1.9266	1.27527 + 0 1.28062 1.28600 1.29141 1.29685 1.30232 1.30782 1.31335 1.31891 1.32450	5.6833 - 6 5.6771 5.6779 5.6646 5.6584 5.6522 5.6460 5.6397 5.6335 5.6273	9.38918 - 1 9.37891 9.36863 9.35835 9.34807 9.33778 9.32749 9.31719 9.30690 9.29660
3500 3550 3600 3650 3700 3750 3800 3850 3900 3950	3498 3548 3548 3648 3698 3748 3798 3848 3848 3848	326.592 326.392 326.192 325.992 325.792 325.592 325.391 325.191 324.990 324.790	1.6775 - 5 1.6759 1.6743 1.6726 1.6710 1.6694 1.6677 1.6661 1.6645	9.37488 - 1 9.36578 9.35667 9.34755 9.33843 9.32931 9.32918 9.31104 9.30190 9.29276	1.9429 - 5 1.9512 1.9595 1.9678 1.9762 1.9846 1.9931 2.0016 2.0102 2.0188	1.33011 + 0 1.33576 1.34144 1.34715 1.35289 1.35866 1.36446 1.37029 1.37616 1.38206	5.6210 - 6 5.6148 5.6085 5.6023 5.5961 5.5898 5.5836 5.5773 5.5711 5.5648	9.28630 - 1 9.27599 9.26568 9.25537 9.24505 9.23473 9.22441 9.21409 9.20376 9.19343
4000 4050 4100 4150 4250 4250 4350 4350 4450	3997 4047 4097 4147 4197 4247 4297 4347 4397	324.589 324.388 324.187 323.985 323.784 323.582 323.381 323.179 322.977 322.775	1.6612 - 5 1.6596 1.6579 1.6563 1.6546 1.6530 1.6513 1.6497 1.6481	9.28361 - 1 9.27445 9.26529 9.25612 9.24695 9.23778 9.22860 9.21941 9.21022 9.20102	2.0275 - 5 2.0362 2.0449 2.0537 2.0626 2.0715 2.0804 2.0894 2.0985 2.1076	1.38798 + 0 1.39395 1.39994 1.40597 1.41203 1.41812 1.42424 1.43040 1.43660 1.44283	5.5586 - 6 5.5523 5.5460 5.5398 5.5335 5.5273 5.5210 5.5147 5.5084 5.5022	9.18310 - 1 9.17276 9.16242 9.15208 9.14173 9.13138 9.12103 9.11067 9.10031 9.08995
4500 4550 4650 4700 4750 4850 4850 4950	4497 4547 4597 4647 4746 4746 4846 4896	322.573 322.371 322.169 321.966 321.764 321.561 321.358 321.155 320.952 320.749	1.6448 - 5 1.6431 1.6415 1.6398 1.6382 1.6365 1.6349 1.6332 1.6316	9.19182 - 1 9.18261 9.17340 9.16418 9.15496 9.14573 9.13650 9.12726 9.11801 9.10876	2.1167 - 5 2.1259 2.1359 2.1352 2.1445 2.1538 2.1632 2.1727 2.1822 2.1917 2.2013	1.44909 + 0 1.45538 1.46171 1.46808 1.47448 1.48092 1.48739 1.49390 1.50044 1.50702	5.4959 - 6 5.4896 5.4833 5.4771 5.4708 5.4645 5.4582 5.4519 5.4456 5.4393	9.07958 - 1 9.06922 9.05884 9.04847 9.03809 9.02771 9.01733 9.00694 8.99655 8.98616
5000 5050 5100 5150 5200 5250 5300 5350 5400 5450	4996 5046 5096 5146 5196 5246 5296 5346 5395 5445	320.545 320.342 320.138 319.935 319.731 319.527 319.323 319.118 318.914 318.710	1.6282 - 5 1.6266 1.6249 1.6233 1.6216 1.6200 1.6183 1.6166 1.6150 1.6133	9.09951 - 1 9.09025 9.08099 9.07171 9.06244 9.05316 9.04387 9.03458 9.02528 9.01598	2.2110 - 5 2.2207 2.2305 2.2403 2.2502 2.2602 2.2701 2.2802 2.2903 2.3005	1.51364 + 0 1.52030 1.52699 1.53372 1.54048 1.54729 1.55413 1.56101 1.56793 1.57489	5.4331 - 6 5.4268 5.4205 5.4142 5.4079 5.4016 5.3953 5.3890 5.3826 5.3763	8.97576 - 1 8.96536 8.95496 8.94455 8.93414 8.92373 8.91332 8.90290 8.89248 8.88205
5500 5550 5600 5650 5750 5750 5800 5850 5900 5950	5495 5545 5595 5645 5695 5795 5795 5845 5895	318.505 318.300 318.095 317.890 317.685 317.480 317.275 317.069 316.863 316.658	1.6116 - 5 1.6100 1.6083 1.6050 1.6050 1.6033 1.6016 1.6000 1.5983 1.5966	9.00667 - 1 8.99736 8.98804 8.97872 8.96939 8.96006 8.95072 8.94137 8.93202 8.92267	2.3107 - 5 2.3210 2.3313 2.3417 2.3522 2.3627 2.3733 2.3859 2.3946 2.4053	1.58189 + 0 1.58892 1.59600 1.60312 1.61028 1.61747 1.62471 1.63199 1.63931	5.3700 - 6 5.3637 5.3574 5.3511 5.33448 5.3384 5.3381 5.3258 5.3105 5.3131	8.87163 - 1 8.86119 8.85076 8.84032 8.82988 8.81944 8.80899 8.79854 8.78809 8.77764
6000 6050 6100 6150 6250 6350 6350 6450	5994 6084 6094 6148 6194 6294 6344 6394 6443	316.452 316.246 316.039 315.833 315.627 315.420 315.213 315.007 314.800 314.593	1.5949 - 5 1.5933 1.5916 1.5899 1.5882 1.5865 1.5849 1.5832 1.5815	8.91330 - 1 8.90394 8.89456 8.88519 8.87580 8.86642 8.85702 8.85702 8.84762 8.83822 8.83822	2.4162 - 5 2.4270 2.4380 2.4490 2.4600 2.4712 2.4824 2.4936 2.5049 2.5163	1.65408 + 0 1.66153 1.66902 1.67655 1.68413 1.699175 1.69941 1.70712 1.71487 1.72267	5.3068 - 6 5.3005 5.2941 5.2815 5.2751 5.2688 5.2624 5.2561 5.2497	8.76718 - 1 8.75671 8.75671 8.74625 8.73578 8.72531 8.71483 8.70436 8.69388 8.68339 8.67291
6500 6550 6600 6650 6700 6750 6850 6850 6950	6493 6543 6593 6643 6693 6793 6843 6843	314.385 314.178 313.970 313.555 313.555 313.347 313.139 312.931 312.723 312.514	1.5781 - 5 1.5764 1.5748 1.5731 1.5714 1.5697 1.5680 1.5663 1.5646 1.5629	8.81939 - 1 8.80997 8.80054 8.79111 8.78167 8.77223 8.76278 8.75333 8.74387 8.73440	2.5278 - 5 2.5393 2.5509 2.5626 2.5743 2.5861 2.5979 2.6099 2.6219 2.6339	1.73051 + 0 1.73840 1.74633 1.75431 1.76233 1.77040 1.77852 1.78669 1.79490 1.80316	5.2434 - 6 5.2370 5.2307 5.2243 5.2180 5.2116 5.2052 5.1989 5.1925 5.1862	8.66242 - 1 8.65192 8.64143 8.63093 8.62042 8.60992 8.59941 8.58890 8.57838 8.56786
					<u> </u>			

TABLE III.— Continued

GEOPOTENTIAL ALTITUDE, METRIC UNITS

Altit	ude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
H, m	Z, m	C _S ,	μ, kg m ⁻¹ sec ⁻¹	$\frac{\mu}{\mu_{o}}$	η, m² sec-'	$\frac{\eta}{\eta_0}$	k, k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k k _o
7000 7050 7100 7150 7200 7250 7350 7400 7450	7008 7058 7108 7158 7208 7258 7308 7359 7409 7459	312.273 312.064 311.855 311.645 311.226 311.016 310.806 310.596 310.386	1.5610 - 5 1.5593 1.5576 1.5559 1.5542 1.5542 1.5525 1.5507 1.5490 1.5473 1.5456	8.72347 - 1 8.71397 8.70447 8.69495 8.68544 8.67592 8.66639 8.65686 8.64732	2.6479 - 5 2.6602 2.6725 2.6849 2.6974 2.7099 2.7225 2.7352 2.7480 2.7608	1.81276 + 0 1.82115 1.82958 1.83806 1.84660 1.85518 1.86382 1.87250 1.88124 1.89003	5.1788 - 6 5.1724 5.1660 5.1596 5.1532 5.1469 5.1405 5.1341 5.1277 5.1213	8.55572 - 1 8.54517 8.53462 8.52406 8.51350 8.50294 8.49238 8.48181 8.47124 8.46066
7500 7550 7600 7650 7750 7750 7800 7850 7900 7950	7509 7559 7609 7659 7709 7759 7810 7860 7910	310.175 309.965 309.754 309.543 309.332 309.121 308.909 308.698 308.486 308.274	1.5439 - 5 1.5422 1.5405 1.5388 1.5371 1.5354 1.5336 1.5319 1.5302 1.5285	8.62822 - 1 8.61867 8.60910 8.59954 8.58996 8.58038 8.57080 8.56121 8.55161 8.55420	2.7737 - 5 2.7867 2.7998 2.8129 2.8262 2.8395 2.8529 2.8529 2.8663 2.8799 2.8935	1.89887 + 0 1.90777 1.91672 1.92572 1.93477 1.94388 1.95305 1.96226 1.97154 1.98087	5.1149 - 6 5.1085 5.1021 5.0956 5.0892 5.0898 5.0764 5.0700 5.0636 5.0571	8.45009 - 1 8.43950 8.42892 8.41833 8.40774 8.39715 8.38655 8.37595 8.36534 8.35474
8000 8050 8100 8150 8200 8250 8350 8400 8450	8010 8060 8110 8160 8211 8261 8311 8361 8411	308.063 307.850 307.638 307.426 507.213 307.001 306.788 306.575 306.362 306.149	1.5268 - 5 1.5250 1.5233 1.5216 1.5199 1.5182 1.5164 1.5147 1.5130	8.53240 - 1 8.52278 8.51316 8.50353 8.49390 8.49426 8.47462 8.47462 8.45531	2.9072 - 5 2.9210 2.9349 2.9488 2.9629 2.9770 2.9912 3.0055 3.0199 3.0344	1.99026 + 0 1.99970 2.00920 2.01876 2.02837 2.03805 2.04778 2.05758 2.06743 2.07734	5.0507 - 6 5.0443 5.0379 5.0314 5.0250 5.0186 5.0121 5.0057 4.9993 4.9928	8.34412 - 1 8.33351 8.32289 8.31227 8.30165 8.29102 8.28039 8.26976 8.25912 8.24848
8500 8500 8600 8650 8700 8750 8800 8850 8900 8950	8511 8562 8612 8662 8712 8762 8812 8862 8912	305.935 305.722 305.508 305.294 305.080 304.866 304.652 304.437 304.223 304.008	1.5095 - 5 1.5078 1.5061 1.5043 1.5026 1.5009 1.4991 1.4974 1.4976 1.4939	8.43598 - 1 8.42630 8.41662 8.40693 8.39724 8.38754 8.36813 8.35841 8.35841	3.0490 - 5 3.0636 3.0784 3.0932 3.1081 3.1232 3.1383 3.1535 3.1688 3.1842	2.08731 + 0 2.09735 2.10744 2.11760 2.12782 2.13810 2.14845 2.15886 2.16933 2.17987	4.9864 - 6 4.9799 4.9735 4.9670 4.9606 4.9541 4.9477 4.9412 4.9348 4.9283	8.23783 - 1 8.22719 8.21654 8.20588 8.19523 8.18456 8.17390 8.16323 8.15256 8.14189
9000 9050 9100 9150 9200 9250 9300 9350 9400 9450	9013 9063 9113 9163 9213 9263 9314 9364 9414 9464	303.793 303.578 303.363 303.148 302.932 302.717 302.501 302.285 302.069 301.852	1.4922 - 5 1.4904 1.4887 1.4869 1.4852 1.4834 1.4817 1.4799 1.4782 1.4764	8.33896 - 1 8.32922 8.31948 8.30974 8.29998 8.29922 8.28046 8.27069 8.26091 8.25112	3.1997 - 5 3.2153 3.2309 3.2467 3.2626 3.2786 3.2946 3.3108 3.3271 3.3435	2.19047 + 0 2.20114 2.21188 2.22268 2.23355 2.24449 2.255549 2.26657 2.27771 2.28893	4.9218 - 6 4.9154 4.9089 4.9024 4.8960 4.8895 4.8830 4.8766 4.8701 4.8636	8.13121 - 1 8.12053 8.10985 8.09916 8.08847 8.07778 8.06708 8.05638 8.04568 8.03498
9500 9550 9600 9650 9700 9750 9800 9850 9900 9950	9514 9564 9615 9665 9715 9765 9815 9865 9915	301.636 301.419 301.203 300.986 300.769 300.551 300.334 300.117 299.899 299.681	1.4747 - 5 1.4729 1.4712 1.4694 1.4659 1.4659 1.4642 1.4624 1.4606 1.4589	8.24133 - 1 8.23154 8.22173 8.21193 8.20211 8.19229 8.18246 8.17263 8.16279 8.15294	3.3600 - 5 3.3765 3.3932 3.4100 3.4269 3.4439 3.4611 3.4783 3.4956 3.5131	2.30021 + 0 2.31156 2.32299 2.33449 2.34606 2.35770 2.36942 2.38121 2.39308 2.40502	4.8571 - 6 4.8506 4.8441 4.8377 4.8312 4.8247 4.8182 4.8117 4.8052 4.7987	8.02427 - 1 8.01355 8.00284 7.99212 7.98139 7.97067 7.95994 7.94921 7.93847 7.92773
10000 10050 10100 10150 10200 10250 10350 10400 10450	10016 10066 10116 10166 10216 10267 10317 10367 10417	299.463 299.245 299.027 298.808 298.590 298.371 298.152 297.933 297.713 297.494	1.4571 - 5 1.4553 1.4536 1.4518 1.4500 1.4483 1.4465 1.4447 1.4430 1.4412	8.14309 - 1 8.13323 8.12337 8.11350 8.10362 8.09374 8.08385 8.07395 8.06405 8.05414	3.5306 - 5 3.5483 3.5661 3.5840 3.6020 3.6201 3.6383 3.6567 3.6752 3.6938	2.41704 + 0 2.42914 2.44131 2.45356 2.46589 2.47829 2.49078 2.50335 2.51599 2.52872	4.7922 - 6 4.7857 4.7792 4.7727 4.7661 4.7596 4.7531 4.7466 4.7401 4.7336	7.91699 - 1 7.90624 7.89550 7.87399 7.86323 7.85247 7.84170 7.83093 7.82016
10500 10550 10600 10650 10700 10750 10800 10850 10900 10950	10517 10568 10618 10668 10718 10768 10818 10869 10919	297.274 297.055 296.835 296.615 296.394 296.174 295.953 295.733 295.733 295.291	1.4374 - 5 1.4376 1.4359 1.4341 1.4323 1.4305 1.4287 1.4270 1.4252 1.4234	8.04422 - 1 8.03430 8.02438 8.01444 8.00450 7.99455 7.98460 7.97464 7.96468 7.95470	3.7125 - 5 3.7313 3.7503 3.7693 3.7885 3.8079 3.0273 3.88469 3.8666 3.8864	2.54153 + 0 2.55443 2.56741 2.58047 2.59361 2.60685 2.62016 2.63357 2.64706 2.66064	4.7270 - 6 4.7205 4.7140 4.7075 4.7009 4.6944 4.6813 4.6748 4.6683	7.80939 - 1 7.79861 7.78783 7.77704 7.76626 7.75546 7.74467 7.73387 7.72307 7.71227

Δltit	lude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
Z, m	H, m	C _S ,	μ,	$\frac{\mu}{\mu_{0}}$	η, m² sec-'	$\frac{\eta}{\eta_0}$	k, k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k k _o
7000 7050 7100 7150 7200 7250 7300 7350 7400 7450	6992 7042 7092 7142 7192 7242 7292 7342 7391 7441	312.306 312.097 311.888 311.679 311.470 311.261 311.051 310.6842 310.632 310.422	1.5612 - 5 1.5595 1.5578 1.5561 1.5544 1.5527 1.5510 1.5493 1.5476	8.72493 - 1 8.71545 8.70597 8.69648 8.68699 8.67749 8.66799 8.65848 8.64896	2.6461 - 5 2.6583 2.6705 2.6829 2.6953 2.7078 2.7204 2.7330 2.7458 2.7586	1.81147 + 0 1.81983 1.82824 1.83670 1.84520 1.85376 1.86237 1.87102 1.87973 1.888849	5.1798 - 6 5.1734 5.1670 5.1607 5.1543 5.1479 5.1415 5.1352 5.1288 5.1224	8.55734 - 1 8.54682 8.53629 8.52576 8.51523 8.50469 8.49415 8.48360 8.47306
7500 7550 7600 7650 7700 7750 7850 7850 7950	7491 7541 7591 7641 7691 7741 7790 7840 7890 7940	310.212 310.002 309.792 309.582 309.371 309.160 308.950 308.739 308.528 308.317	1.5442 - 5 1.5425 1.5408 1.5391 1.5374 1.5357 1.5340 1.5323 1.5305 1.5288	8.62991 - 1 8.62038 8.61084 8.60130 8.59175 8.58219 8.57263 8.556306 8.555349 8.54391	2.7714 - 5 2.7844 2.7974 2.8105 2.8237 2.8369 2.8503 2.8637 2.8772 2.8708	1.89731 + 0 1.90617 1.91509 1.92406 1.93308 1.94216 1.95129 1.96018 1.96972 1.97901	5.1160 - 6 5.1096 5.1032 5.0968 5.0904 5.0840 5.0776 5.0772 5.0648 5.0584	8.45196 - 1 8.44140 8.43084 8.42028 8.40971 8.389915 8.36858 8.37800 8.36742 8.35684
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8500 8550 8600 8650 8700 8750 8800 8850 8900 8950	8489 8539 8588 8638 8688 8738 8788 8838 8888 8937	305.984 305.771 305.558 305.345 305.311 304.918 304.704 304.490 304.276 304.062	1.5099 - 5 1.5082 1.5065 1.5047 1.5030 1.5013 1.4995 1.49978 1.4961 1.4961	8.43817 - 1 8.42852 8.41887 8.40921 8.39955 8.38988 8.38020 8.37052 8.36083 8.35114	3.0457 - 5 3.0603 3.0749 3.0897 3.1046 3.1195 3.1346 3.1497 3.1650 3.1803	2.08504 + 0 2.09504 2.10509 2.11520 2.12538 2.13562 2.14592 2.15629 2.16672 2.17721	4.9878 - 6 4.9814 4.9750 4.9686 4.9621 4.9557 4.9493 4.9428 4.9364 4.9299	8.24025 - 1 8.22963 8.21901 8.20839 8.19776 8.18713 8.17650 8.16586 8.15522 8.14458
9000 9050 9100 9150 9200 9250 9350 9350 9400 9450	8987 9037 9087 9137 9187 9237 9286 9336 9386 9436	303.848 303.634 303.419 303.204 302.989 302.775 302.559 302.344 302.129 301.913	1.4926 - 5 1.4909 1.4891 1.4856 1.4839 1.4839 1.4822 1.4804 1.4787	8.34144 - 1 8.33173 8.32202 8.31230 8.30258 8.29285 8.28311 8.27337 8.26362 8.25387	3.1957 - 5 3.2112 3.2268 3.2426 3.2584 3.2743 3.2903 3.3064 3.3226 3.3389	2.18777 + 0 2.19839 2.20908 2.21983 2.23065 2.24154 2.25250 2.26352 2.27461 2.28577	4.9235 - 6 4.9170 4.9106 4.9042 4.8977 4.8912 4.8848 4.8783 4.8719 4.8654	8.13393 - 1 8.12328 8.11263 8.10198 8.09132 8.08066 8.06999 8.05932 8.04865 8.03798
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10500 10550 10600 10650 10700 10750 10800 10850 10900	10483 10533 10582 10632 10682 10732 10782 10832 10881 10931	297.350 297.131 296.912 296.693 296.474 296.254 296.034 295.814 295.594	1.4400 - 5 1.4383 1.4365 1.4347 1.4329 1.4312 1.4294 1.4276 1.4258 1.4241	8.04766 - 1 8.03777 8.02788 8.01798 8.00808 7.99817 7.99825 7.97833 7.96840 7.95846	3.7060 - 5 3.7247 3.7436 3.7625 3.7816 3.8008 3.8202 3.8396 3.8592 3.8790	2.53709 + 0 2.54991 2.56282 2.57580 2.58888 2.60203 2.61527 2.62860 2.64201 2.65551	4.7293 - 6 4.7228 4.7163 4.7098 4.7033 4.6968 4.6903 4.6838 4.6772 4.6707	7.81312 - 1 7.80238 7.79163 7.78089 7.77014 7.75938 7.774863 7.73787 7.72710 7.71634

TABLE III. - Continued

GEOPOTENTIAL ALTITUDE, METRIC UNITS

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Altit	ude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
Z, m	H, m	C _S , m sec⁻¹	μ, kg m ⁻¹ sec ⁻¹	$\frac{\mu}{\mu_0}$	η, m² sec-1	$\frac{\eta}{\eta_0}$	k, k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k k _o
11000 11100 11200 11300 11300 11500 11500 11600 11700 11800	10981 11081 11180 11280 11380 11479 11579 11679 11778 11878	295.154 295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069	1.4223 - 5 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216	7.94852 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	3.8988 - 5 3.9564 4.0191 4.0827 4.1474 4.2131 4.2298 4.3475 4.164	2.66910 + 0 2.70854 2.75143 2.79501 2.83927 2.88424 2.92991 2.97631 3.02344 3.07131	4.6642 - 6 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617	7.70557 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
12000 12100 12200 12300 12400 12500 12600 12700 12800 12900	11977 12077 12177 12276 12376 12475 12575 12675 12774 12874	295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069	1.4216 - 5 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	4.5574 - 5 4.6295 4.7028 4.7773 4.8529 4.9297 5.0078 5.0870 5.1676 5.2494	3.11994 + 0 3.16934 3.21952 3.27049 3.32227 3.37486 3.42829 3.48256 3.53769 3.59369	4.6617 - 6 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
13000 13100 13200 13300 13400 13500 13600 13700 13800 13900	12973 13073 13173 13272 13372 13471 13571 13671 13770 13870	295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069	1.4216 - 5 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216	7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	5.3325 - 5 5.4169 5.5026 5.5897 5.6782 5.7680 5.8593 5.9520 6.0462 6.1419	3.65057 + 0 3.70835 3.76705 3.82667 3.88723 3.94876 4.01125 4.07473 4.13921 4.20471	4.6617 - 6 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
14000 14100 14200 14200 14300 14500 14500 14600 14700 14800 14900	13969 14069 14168 14268 14367 14467 14567 14566 14766	295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069	1.4216 - 5 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	6.2391 - 5 6.3378 6.4381 6.5400 6.6434 6.7485 6.8553 6.9638 7.0739 7.1858	4.27124 + 0 4.33883 4.40748 4.47722 4.54805 4.62001 4.69310 4.76735 4.84277 4.91937	4.6617 - 6 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
15000 15100 15200 15300 15400 15500 15600 15700 15800 15900	14965 15064 15164 15263 15363 15462 15562 15661 15761	295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069	1.4216 - 5 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	7.2995 - 5 7.4150 7.5323 7.6514 7.7724 7.8953 8.0202 8.1471 8.2759 8.4068	4.99719 + 0 5.07624 5.15653 5.23810 5.32095 5.40510 5.49059 5.57742 5.66563 5.75523	4.6617 - 6 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
16000 16100 16200 16300 16400 16500 16600 16700 16800 16900	15960 16059 16159 16258 16358 16457 16557 16656 16756 16855	295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069	1.4216 - 5 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	8.5397 - 5 8.6748 8.8119 8.9513 9.0928 9.2366 9.3826 9.5309 9.6816 9.8347	5.84624 + 0 5.93869 6.03259 6.12798 6.22488 6.32330 6.42328 6.52483 6.62799 6.73277	4.6617 - 6 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
17000 17100 17200 17300 17400 17500 17600 17600 17700 17800 17900	16955 17054 17154 17253 17352 17452 17551 17651 17750 17850	295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069	1.4216 - 5 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	9.9902 - 5 1.0148 - 4 1.0309 1.0471 1.0037 1.0805 1.0976 1.1149 1.1326 1.1505	6.83921 + 0 6.94732 7.05714 7.16870 7.28201 7.39711 7.51403 7.63279 7.75342 7.87596	4.6617 - 6 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
18000 18100 18200 18300 18400 18500 18600 18700 18800 18900	17949 18049 18148 18247 18347 18446 18546 18545 18745	295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069	1.4216 - 5 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.1686 - 4 1.1871 1.2059 1.2249 1.2243 1.2639 1.3042 1.3348 1.3457	8.00043 + 0 8.12686 8.25529 8.38574 8.51825 8.65285 8.78957 8.92845 9.06952 9.21281	4.6617 - 6 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146

GEOPOTENTIAL ALTITUDE, METRIC UNITS

Altit	ude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
H, m	Z, m	C _S ,	μ, kg m ⁻¹ sec ⁻¹	$\frac{\mu}{\mu_{0}}$	η, m² sec-'	$\frac{\eta}{\eta_0}$	k, k-cal m ⁻¹ sec ^{-1(e} K) ⁻¹	k k _o
19000 19100 19200 19300 19400 19500 19600 19700 19800 19900	19057 19158 19258 19359 19459 19560 19661 19761 19862 19963	295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069 295.069	1.4216 - 5 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216 1.4216	7.94472 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.3793 - 4 1.4012 1.4234 1.4461 1.4691 1.4924 1.5161 1.5402 1.5547 1.5896	9.44230 + 0 9.59237 9.74483 9.89972 1.00571 + 1 1.02169 1.03793 1.05443 1.07118 1.08821	4.6617 - 6 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617 4.6617	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
20000 20100 20200 20300 20400 20500 20600 20700 20700 20900	20063 20164 20264 20365 20466 20566 20667 20768 20868 20969	295.069 295.138 295.206 295.274 295.342 295.410 295.478 295.546 295.614 295.682	1.4216 - 5 1.4222 1.4227 1.4233 1.4238 1.4244 1.4249 1.4255 1.4260 1.4266	7.94472 - 1 7.94780 7.95087 7.95394 7.95700 7.96007 7.96314 7.96621 7.96928 7.97234	1.6148 - 4 1.6419 1.6694 1.6973 1.7257 1.7546 1.7839 1.8137 1.8440	1.10551 + 1 1.12402 1.14285 1.16197 1.18141 1.20116 1.22124 1.24164 1.26237 1.28344	4.6617 - 6 4.6637 4.6657 4.6678 4.6698 4.6718 4.6738 4.6758 4.6758 4.6778	7.70146 - 1 7.70479 7.70811 7.71144 7.711476 7.71809 7.72141 7.722473 7.72806 7.73138
21000 21100 21200 21300 21400 21500 21600 21700 21800 21900	21070 21170 21271 21372 21472 21573 21674 21774 21875 21976	295.750 295.818 295.885 295.953 296.021 296.089 296.157 296.225 296.225 296.293 296.360	1.4271 - 5 1.4277 1.4282 1.4287 1.4293 1.4298 1.4304 1.4309 1.4315 1.4320	7.97541 - 1 7.97847 7.98154 7.98460 7.98766 7.99073 7.99379 7.99685 7.99991 8.00297	1.9060 - 4 1.9378 1.9701 2.0029 2.0363 2.0702 2.1046 2.1396 2.1751 2.2113	1.30485 + 1 1.32661 1.34872 1.37118 1.39401 1.41721 1.44075 1.46475 1.48909 1.51383	4.6818 - 6 4.6839 4.6859 4.6899 4.6919 4.6939 4.6959 4.6959	7.73470 - 1 7.73803 7.74135 7.74467 7.74799 7.75131 7.75463 7.75476 7.76460
22000 22100 22200 22300 22400 22500 22600 22700 22800 22900	22076 22177 22278 22379 22479 22580 22681 22781 22882 22983	296.428 296.496 296.564 296.632 296.699 296.767 296.835 296.902 296.970 297.038	1.4326 - 5 1.4331 1.4337 1.4342 1.4348 1.4353 1.4359 1.4364 1.4370 1.4375	8.00603 - 1 8.00909 8.01215 8.01521 8.01826 8.02132 8.02438 8.02743 8.03049 8.03054	2.2480 - 4 2.2853 2.3232 2.3617 2.4009 2.4407 2.4811 2.5221 2.5638 2.6062	1.53896 + 1 1.56450 1.59046 1.61683 1.64363 1.67085 1.69852 1.72663 1.75520 1.78422	4.7019 - 6 4.7040 4.7060 4.7080 4.7100 4.7120 4.7140 4.7140 4.7160 4.7180 4.7200	7.76792 - 1 7.77123 7.77455 7.77487 7.78119 7.78451 7.78783 7.79115 7.79446 7.79778
23000 23100 23200 23300 23400 23500 23600 23700 23800 23900	23084 23184 23285 23386 23486 23587 23688 23789 23889 23990	297.105 297.173 297.241 297.308 297.376 297.443 297.511 297.578 297.646 297.713	1.4381 - 5 1.4386 1.4391 1.4397 1.4402 1.4408 1.4413 1.4419 1.4430	8.03659 - 1 8.03965 8.04270 8.04575 8.04880 8.05185 8.05189 8.05795 8.06100 8.06405	2.6493 - 4 2.6931 2.7376 2.7827 2.8286 2.8753 2.9227 2.9708 3.0197 3.0694	1.81371 + 1 1.84367 1.87411 1.90504 1.93647 1.96840 2.00085 2.03381 2.06730 2.10132	4.7220 - 6 4.7240 4.7260 4.7280 4.7301 4.7321 4.7321 4.7381 4.7381 4.7401	7.80110 - 1 7.80441 7.80773 7.81105 7.81436 7.81768 7.82099 7.82431 7.82762 7.83093
24000 24100 24200 24300 24400 24500 24600 24700 24900	24091 24192 24292 24393 24494 24595 24696 24796 24798	297.781 297.848 297.916 297.983 298.051 298.118 298.186 298.253 298.320 298.320	1.4435 - 5 1.4441 1.4446 1.4457 1.4452 1.4468 1.4473 1.4479 1.4484	8.06710 - 1 8.07014 8.07019 8.07624 8.07928 8.08233 8.08537 8.08841 8.09146	3.1199 - 4 3.1712 3.2234 3.2763 3.3301 3.3848 3.4403 3.4907 3.5541 3.6123	2.13589 + 1 2.17102 2.20670 2.24295 2.27979 2.31721 2.35522 2.39385 2.43308 2.47295	4.7421 - 6 4.7441 4.7461 4.7461 4.7501 4.7521 4.7521 4.7561 4.7581 4.7581 4.7601	7.83425 - 1 7.83756 7.84087 7.84419 7.844750 7.85081 7.85412 7.85744 7.86075 7.86406
25000 25100 25200 25300 25400 25500 25600 25700 25800 25900	25099 25300 25300 25401 25502 25603 25704 25804 25805 26006	298.455 298.522 298.590 298.657 298.724 298.791 298.859 298.926 298.993 299.060	1.4490 - 5 1.4495 1.4500 1.4500 1.4511 1.4517 1.4522 1.4528 1.4533 1.4539	8.09754 - 1 8.10058 8.10362 8.10362 8.10970 8.11274 8.11578 8.11881 8.12185 8.12489	3.6714 - 4 3.7315 3.7926 3.8546 3.9176 3.9816 4.0467 4.1127 4.11798 4.2480	2.51344 + 1 2.55459 2.59638 2.63884 2.68198 2.72580 2.77031 2.81554 2.86148 2.90814	4.7621 - 6 4.7641 4.7661 4.7682 4.7702 4.7722 4.7742 4.7762 4.7782 4.7802	7.86737 - 1 7.87368 7.87379 7.87730 7.88361 7.88392 7.88723 7.89053 7.89384 7.89715
26000 26100 26200 26300 26400 26500 26600 26700 26800 26900	26107 26208 26308 26409 26510 26611 26712 26813 26913 27014	299.127 299.195 299.262 299.329 299.396 299.463 299.530 299.597 299.664 299.731	1.4544 - 5 1.4549 1.4555 1.4566 1.4571 1.4577 1.4582 1.4587 1.4593	8.12792 - 1 8.13096 8.13399 8.13703 8.14006 8.14309 8.14612 8.14916 8.15219 8.1522	4.3172 - 4 4.3876 4.4590 4.5316 4.6054 4.6803 4.7564 4.8336 4.9312	2.95555 + 1 3.00371 3.05263 3.10233 3.15281 3.20408 3.25617 3.30909 3.36283 3.41743	4.7822 - 6 4.7842 4.7862 4.7802 4.7902 4.7902 4.7942 4.7962 4.7982 4.8002	7.90046 - 1 7.90376 7.90707 7.91038 7.91368 7.91699 7.92030 7.92360 7.92360 7.92691 7.93021

					I		I	
Altit	ude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
Z, m	H, m	C _s ,	μ ,	$\frac{\mu}{\mu_{o}}$	η ,	$\frac{\eta}{2}$	k,	<u>k</u>
,	,	m șec ⁻¹	kg m ⁻¹ sec ⁻¹	μ{o}	m² sec-1	$\overline{\eta_0}$	k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k _o
19000	18943	295.069	1.4216 - 5	7.94472 - 1 7.94472	1.3670 - 4 1.3886	9.35836 + 0 9.50620	4.6617 - 6 4.6617	7.70146 - 7.70146
9100	19043 19142	295.069 295.069	1.4216 1.4216	7.94472	1.4105	9.65638	4.6617	7.70146
9300	19242	295.069	1.4216	7.94472	1.4328	9.80893	4.6617	7.70146
9400	19341	295.069	1.4216	7.94472 7.94472	1.4554 1.4784	9.96387 1.01213 + 1	4.6617 4.6617	7.70146 7.70146
9500 9600	19440 19540	295.069 295.069	1.4216 1.4216	7.94472	1.5018	1.02811	4.6617	7.70146
9700	19639	295.069	1.4216	7.94472	1.5255	1.04435	4.6617	7-70146
9800 9900	19739 19838	295.069 295.069	1.4216 1.4216	7.94472 7.94472	1.5496 1.5741	1.06085 1.07760	4.6617 4.6617	7.70146 7.70146
0000	19937	295.069	1.4216 - 5	7-94472 - 1	1.5989 - 4	1.09462 + 1	4.6617 - 6	7.70146 -
0100	20037	295.094	1.4218	7.94585	1.6247 1.6517	1.11226 1.13077	4.6625	7.70268 7.70598
0200 0300	20136 20235	295.162 295.230	1.4224 1.4229	7.94890 7.95195	1.6792	1.14958	4.6665	7.70929
0400	20335	295.297	1.4235	7.95500	1.7071	1.16869	4.6685	7.71259
0500	20434	295.365	1.4240 1.4245	7.95805 7.96110	1.7355 1.7643	1.18811 1.20784	4.6705 4.6725	7.71589 7.71920
0600 0700	20533 20633	295.432 295.500	1.4251	7.96415	1.7936	1.22789	4.6745	7.72250
0000	20732 20832	295.568 295.635	1.4256	7.96720 7.97024	1.8234 1.8536	1.24827 1.26897	4.6765 4.6784	7.72580 7.72910
1000	20931	295.703	1.4267 - 5	7.97329 - 1	1.8843 - 4	1.29001 + 1	4.6804 - 6	7.73241 -
1100	21030	295.770	1.4273	7.97633	1.9156	1.31138	4.6824	7.73571 7.73901
1200 1300	21130 21229	295.838 295.905	1.4278 1.4284	7.97938 7.98242	1.9473 1.9795	1.33310 1.35516	4.6844 4.6864	7.74231
1400	21328	295.973	1.4289	7.98546	2.0123	1.37758	4.6884	7.74561
1500	21428	296.040	1.4294	7.98851	2.0455	1.40036	4.6904 4.6924	7.74891 7.75220
1600 1700	21527 21626	296.107 296.175	1.4300 1.4305	7.99155 7.99459	2.0793 2.1137	1.42351	4.6944	7.75550
1800 1900	21725 21825	296.242 296.309	1.4311	7.99763 8.00067	2.1486 2.1841	1.47091	4.6964 4.6984	7.75880 7.76210
		296.377	1.4322 - 5	8.00371 - 1	2.2201 - 4	1.51985 + 1	4.7004 - 6	7.76540 -
2000	21924 22023	296.444	1.4327	8.00675	2.2567	1.54491	4.7024	7.76869
2200	22123	296.511	1.4333	8.00979	2.2939	1.57037	4.7044	7.77199 7.77529
2300	22222 22321	296.579 296.646	1.4338 1.4343	8.01282 8.01586	2.3316 2.3700	1.59623 1.62251	4.7064 4.7084	7.77858
2500	22421	296.713	1.4349	8.01889	2.4090	1.64921	4.7104	7.78188
2600	22520	296.781	1.4354	8.02193	2.4487 2.4889	1.67633 1.70389	4.7124	7.78517 7.78847
2700 2800	22619 22719	296.848 296.915	1.4360 1.4365	8.02496 8.02800	2.5298	1.73188	4.7164	7.79176
2900	22818	296.982	1-4371	8.03103	2.5713	1.76032	4.7184	7.79505
23000	22917	297.049 297.116	1.4376 - 5 1.4381	8.03406 - 1 8.03709	2.6135 - 4 2.6564	1.78922 + 1 1.81857	4.7204 - 6 4.7224	7.79835 - 7.80164
3100 3200	23016 23116	297.116	1.4387	8.04012	2.7000	1.84839	4.7243	7.80493
3300	23215	297.251	1.4392	8.04315	2.7442	1.87869	4.7263	7.80822
3400	23314 23413	297.318 297.385	1.4398 1.4403	8.04618 8.04921	2.7892 2.8349	1.90947	4.7283 4.7303	7.81152 7.81481
3500 3600	23513	297.452	1.4409	8.05224	2.8813	1.97249	4.7323	7.81810
3700	23612	297.519	1.4414	8.05527	2.9284	2.00476	4.7343	7.82139
3800 3900	23711 23810	297.586 297.653	1.4419 1.4425	8.05829 8.06132	2.9763 3.0249	2.03754 2.07083	4.7363 4.7383	7.82468 7.82797
4000	23910	297.720	1.4430 - 5	8.06434 - 1	3.0743 - 4	2.10466 + 1	4,7403 - 6	7.83126 -
4100 4200	24009 24108	297.787 297.854	1.4436	8.06737 8.07039	3.1245 3.1755	2.13902 2.17392	4.7423	7.83454 7.83783
4300	24207	297.921	1.4446	8.07342	3.2273	2.20938	4.7463	7.84112
4400	24307	297.988	1.4452	8.07644	3.2799	2.24540 2.28199	4.7482 4.7502	7.84441 7.84770
4500 4600	24406 24505	298.055 298.122	1.4457 1.4463	8.07946 8.08248	3.3333 3.3876	2.20199	4.7522	7.85098
4700	24604	298.188	1.4468	8.08550	3.4428	2.35690	4.7542	7.85427
4800 4900	24704 24803	298.255 298.322	1.4473 1.4479	8.08852 8.09154	3.4988 3.5557	2.39525 2.43420	4.7562 4.7582	7.85755 7.86084
5000	24902	298.389	1.4484 - 5	8.09456 - 1	3.6135 - 4	2.47377 + 1	4.7602 - 6	7.86413 -
5100 5200	25001 25100	298.456	1.4490	8.09758 8.10059	3.6722 3.7318	2.51396 2.55479	4.7622 4.7642	7.86741 7.87069
5300	25200	298.589	1.4500	8.10361	3.7924	2.59625	4.7661	7.87398
5400	25299	298.656	1.4506	8.10663	3.8539	2.63837	4.7681	7-87726
5500 5600	25398 25497	298.723 298.790	1.4511 1.4517	8.10964 8.11266	3.9164 3.9799	2.68115 2.72461	4.7701 4.7721	7.88054 7.88383
5700	25597	298.856	1.4522	8.11567	#*O###	2.76874	4.7741	7.88711
5800 5900	25696 25795	298.923 298.990	1.4527 1.4533	8.11868 8.12170	4.1098 4.1764	2.81358 2.85911	4.7761 4.7781	7.89039 7.89367
6000	25894	299.056	1.4538 - 5	8.12471 - 1	4.2439 - 4	2.90536 + 1	4.7800 - 6	7.89695 -
00165	25993	299.123	1.4544	8.12772	4.3125 4.3822	2.95233 3.00004	4.7820 4.7840	7.90023 7.90351
26200 26300	26092 26192	299.190 299.256	1.4549	8.13073 8.13374	4.4530	3.04850	4.7860	7.90679
6400	26291	299.323	1.4560	8.13675	4.5249	3.09772	4.7880	7.91007
26500	26390	299.389	1.4565	8.13975 8.14274	4.5979 4.6721	3.14771 3.19848	4.7900 4.7920	7.91335 7.91663
6600	26489 26588	299.456	1.4570 1.4576	8.14276 8.14577	4.6721 4.7474	3.25004	4.7939	7.91991
6800	26687	299.589	1.4581	8.14878	4.8239	3.30241	4.7959	7.92319
6900	26787	299.655	1.4587	8.15178	4.9016	3.35560	4.7979	7.92646
		L						

TABLE III. - Continued

GEOPOTENTIAL ALTITUDE, METRIC UNITS

Altit	ude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
H, m	Z, m	C _S ,	μ, kg m ⁻¹ sec ⁻¹	$\frac{\mu}{\mu_0}$	η, m² sec-'	$\frac{\eta}{\eta_0}$	k, k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k k _o
27000 27100 27100 27300 27300 27400 27500 27600 27800 27900	27115 27216 27317 27418 27519 27620 27720 27821 27922 28023	299.798 299.865 299.999 300.666 300.133 300.200 300.267 300.334 300.401	1.4598 - 5 1.4604 1.4609 1.4614 1.4620 1.4625 1.4631 1.4636 1.4647	8.15825 - 1 8.16128 8.16430 8.16733 8.17036 8.17339 8.17641 8.17644 8.18549	5.0729 - 4 5.1552 5.2388 5.3237 5.4099 5.4975 5.5665 5.6768 5.7686 5.8619	3.47289 + 1 3.52922 3.58644 3.64456 3.70359 3.76356 3.82446 3.88633 3.94917 4.01299	4.8022 - 6 4.8042 4.8082 4.8082 4.8102 4.8122 4.8142 4.8142 4.8162 4.8182	7.93352 - 1 7.93682 7.98012 7.98343 7.98673 7.95003 7.95334 7.95664 7.95994 7.96324
28000 28100 28200 28300 28300 28500 28500 28600 28700 28800 28900	28124 28225 28326 28427 28527 28628 28729 28830 28931 29032	300.468 300.535 300.602 300.668 300.735 300.802 300.869 300.936 301.002 301.069	1.4652 - 5 1.4658 1.4663 1.4669 1.4674 1.4679 1.4685 1.4696 1.4701	8.18851 - 1 8.19153 8.19156 8.19456 8.20758 8.20362 8.20362 8.20364 8.20966 8.21268 8.21570	5.9566 - 4 6.0527 6.1504 6.2496 6.3504 6.4528 6.5567 6.6623 6.7696 6.8785	4.07782 + 1 4.14367 4.21054 4.27847 4.34746 4.41753 4.48870 4.56099 4.63440 4.70897	4.8222 - 6 4.8242 4.8262 4.8282 4.8302 4.8322 4.8342 4.8362 4.8362 4.8401	7.96654 - 1 7.96984 7.97314 7.97614 7.97874 7.98304 7.98634 7.98964 7.99294 7.99624
29000 29100 29200 29300 29400 29500 29600 29700 29800 29900	29133 29234 29335 29436 29537 29638 29738 29839 29840 30041	301.136 301.203 301.269 301.336 301.403 301.469 301.536 301.603 301.669 301.736	1.4706 - 5 1.4712 1.4717 1.4723 1.4728 1.4733 1.4739 1.4734 1.4750 1.4755	8.21872 - 1 8.22173 8.22177 8.22177 8.23078 8.23380 8.23381 8.23983 8.24284 8.24284	6.9891 - 4 7.1014 7.2155 7.3314 7.4491 7.5686 7.6900 7.8133 7.9385 8.0657	4.78469 + 1 4.86161 4.93972 5.01905 5.09962 5.18145 5.26455 5.34895 5.43466 5.52170	4.8421 - 6 4.8441 4.8461 4.8481 4.8501 4.8521 4.8541 4.8561 4.8561 4.8561	7.99954 - 1 8.00284 8.00613 8.00943 8.01273 8.01603 6.01932 8.02262 8.022591 8.02921
00000 00100 00200 00300 00400 00300 00300 00300 00300	30142 30243 30344 30445 30546 30647 30748 30950 31051	301.802 301.869 301.936 302.002 302.069 302.135 302.202 302.268 302.335 302.401	1.4760 - 5 1.4766 1.4771 1.4777 1.4782 1.4787 1.4793 1.4798 1.4803	8.24886 - 1 8.25188 8.25189 8.25790 8.26091 8.26392 8.26693 8.26993 8.27294 8.27294	8.1948 - 4 8.3259 8.4591 8.5944 8.7317 8.8712 9.0128 9.1567 9.3027 9.4511	5.61011 + 1 5.69988 5.79106 5.88364 5.97767 6.07316 6.17013 6.26860 6.36861 6.47015	4.8621 - 6 4.8641 4.8661 4.8681 4.8701 4.8721 4.8741 4.8761 4.8780 4.8800	8.03250 - 1 8.03580 8.03909 8.04239 8.04568 8.04897 8.05227 8.05556 8.05885 8.06215
31000 31100 31200 31300 31400 31500 31600 31700 31800 31900	31152 31253 31354 31455 31556 31657 31758 31859 31960 32061	302.467 302.534 302.600 302.667 302.733 302.799 302.866 302.932 302.998 303.065	1.4814 - 5 1.4820 1.4825 1.4836 1.4836 1.4841 1.4846 1.4857 1.4863	8.27895 - 1 8.28196 8.28496 8.28797 8.29097 8.29398 8.29398 8.29598 8.30298	9.6017 - 4 9.7547 9.9100 1.0068 - 3 1.0228 1.0391 1.0556 1.0723 1.0894 1.1067	6.57328 + 1 6.67800 6.78434 6.89233 7.00199 7.11334 7.22642 7.34123 7.45783 7.57622	4.8820 - 6 4.8840 4.8860 4.8890 4.8900 4.8920 4.8940 4.8960 4.8980 4.9000	8.06544 - 1 8.06873 8.07202 8.07531 8.07860 8.08189 8.08518 8.08847 8.09176
32000 32200 32400 32600 32800 33000 33200 33400 33600 33800	32162 32364 32566 32768 32970 33172 33374 33576 33576 33981	303.131 303.502 303.873 304.243 304.612 304.981 305.350 305.719 306.086 506.454	1.4868 - 5 1.4898 1.4928 1.4958 1.4988 1.5018 1.5048 1.5078 1.5107	8.30899 - 1 8.32578 8.34255 8.35935 8.37605 8.37605 8.39277 8.40947 8.42615 8.44282	1.1242 - 3 1.1635 1.2040 1.2458 1.2890 1.3335 1.3775 1.4269 1.4269 1.4758 1.5263	7.69644 + 1 7.96509 8.24243 8.52869 8.82416 9.12910 9.44379 1.01036 + 2 1.04493	4.9020 - 6 4.9131 4.9242 4.9354 4.9465 4.9576 4.9687 4.9798 4.9909 5.0020	8.09834 - 1 8.11675 8.13516 8.15355 8.17193 8.19031 8.20867 8.22702 8.24537 8.26370
34000 34200 34400 34600 35000 35000 35200 35400 35800	34183 34385 34587 34789 34992 35194 35396 35598 35801 36003	306.821 307.187 307.553 307.919 308.284 308.649 309.013 309.377 309.741 310.104	1.5167 - 5 1.5197 1.5226 1.5226 1.5286 1.5315 1.5345 1.5374 1.5404 1.5433	8.47610 - 1 8.49271 8.50931 8.52589 8.54245 8.55899 8.57552 8.57202 8.60852 8.62499	1.5784 - 3 1.6322 1.6876 1.7448 1.8038 1.8646 1.9273 1.9919 2.0586 2.1273	1.08059 + 2 1.11738 1.15533 1.19447 1.23484 1.27647 1.31940 1.36366 1.40930	5.0131 - 6 5.0242 5.0353 5.0464 5.0574 5.0685 5.0796 5.0906 5.1017 5.1127	8.28203 - 1 8.30034 8.31864 8.33694 8.35523 8.37350 8.39177 8.41002 8.42827 8.44651
36000 36200 36400 36800 37000 37200 37400 37600 37800	36205 36407 36610 36812 37014 37217 37419 37621 37824 38026	310.466 310.829 311.191 311.552 311.913 312.273 312.634 312.993 313.353 313.711	1.5463 - 5 1.5492 1.5522 1.5551 1.5580 1.5610 1.5639 1.5668 1.5697	8.64145 - 1 8.65788 8.67431 8.69071 8.70710 8.72347 8.73982 8.75616 8.77248 8.78878	2.1982 - 3 2.2712 2.3465 2.4241 2.5865 2.6714 2.7589 2.8490 2.9419	1.50486 + 2 1.55486 1.60640 1.65952 1.71427 1.77068 1.82882 1.88872 1.95043 2.01402	5.1237 - 6 5.1348 5.1458 5.1568 5.1678 5.1788 5.1898 5.2008 5.2118 5.2228	8.46473 - 1 8.48295 8.50116 8.51935 8.53754 8.55572 8.57389 8.59204 8.61019 8.62833

Altit	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
Z, m	H, m	C _S ,	μ ,	$\frac{\mu}{\mu_0}$	η, m² sec-¹	$\frac{\eta}{\eta_0}$	k, k-cal m ⁻¹ sec ^{-1(o} K) ⁻¹	k k _o
27000 27100 27200 27300 27400 27500 27500 27600 27700 27800 27900	26886 26985 27084 27183 27282 27382 27481 27580 27679 27778	299.722 299.788 299.855 299.921 299.988 300.054 300.120 300.187 300.253 300.319	1.4592 - 5 1.4597 1.4603 1.4608 1.4619 1.4619 1.4624 1.4635 1.4635	8.15479 - 1 8.15779 8.16079 8.16380 8.16680 8.16980 8.17280 8.17280 8.17880 8.17880	4.9805 - 4 5.0606 5.1420 5.2247 5.3086 5.3939 5.4805 5.5684 5.6577 5.7484	3.40962 + 1 3.46448 3.52020 3.57678 3.63426 3.69262 3.75189 3.81209 3.87322 3.93530	4.7999 - 6 4.8019 4.8039 4.8058 4.8078 4.8118 4.8138 4.8138 4.8177	7.92974 - 1 7.93302 7.93629 7.93957 7.94284 7.94612 7.94939 7.95267 7.95594 7.95922
28000 28100 28200 28300 28500 28500 28600 28700 28900	27877 27976 28075 28175 28175 28274 28373 28472 28571 28670 28769	300.386 300.452 300.518 300.585 300.651 300.717 300.783 300.850 300.916 300.982	1.4646 - 5 1.4651 1.4656 1.4662 1.4667 1.4673 1.4673 1.4683 1.4689	8.18480 - 1 8.18780 8.19079 8.19379 8.19478 8.19978 8.20277 8.20577 8.20876 8.21175	5.8405 - 4 5.9340 6.0290 6.1254 6.2234 6.3228 6.4238 6.5264 6.6306 6.7363	3.99835 + 1 4.06238 4.12740 4.19343 4.26048 4.32857 4.39772 4.46794 4.53925 4.61166	4.8197 - 6 4.8217 4.8237 4.8257 4.8276 4.8276 4.8316 4.8336 4.8356 4.8375	7.96249 - 1 7.96576 7.96903 7.97230 7.97558 7.97885 7.98212 7.98539 7.988666 7.99193
29000 29100 29200 29300 29400 29500 29600 29700 29800 29900	28868 28967 29066 29166 29265 29364 29463 29562 29661 29760	301.048 301.114 301.180 301.246 301.312 301.379 301.445 301.511 301.577	1.4699 - 5 1.4705 1.4715 1.4715 1.4721 1.4726 1.4731 1.4737 1.4742 1.4747	8.21474 - 1 8.21773 8.22072 8.22371 8.22670 8.22969 8.23268 8.23566 8.23865 8.24163	6.8438 - 4 6.9528 7.0636 7.1760 7.2902 7.4062 7.5240 7.6435 7.7649 7.8882	4.68519 + 1 4.75986 4.83568 4.91267 4.99085 5.07024 5.15085 5.23271 5.31582 5.40022	4.8395 - 6 4.8435 4.8435 4.8454 4.8474 4.8514 4.8534 4.8533 4.8533	7.99519 - 1 7.99846 8.00173 8.00500 8.00827 8.01153 8.01480 8.01806 8.02133 8.02460
30000 30100 30200 30300 30400 30500 30600 30700 30800 30900	29859 29958 30057 30156 30255 30354 30453 30552 30651 30751	301.709 301.775 301.841 301.906 301.972 302.038 302.104 302.170 302.236 302.302	1.4753 - 5 1.4758 1.4763 1.4769 1.4774 1.4779 1.4785 1.4790 1.4795 1.4801	8.24462 - 1 8.24760 8.25059 8.25357 8.25655 8.25655 8.26551 8.26549 8.26549 8.26847 8.27145	8.0134 - 4 8.1405 8.2695 6.4006 8.5336 8.6687 8.8059 8.9452 9.0866 9.2302	5.48591 + 1 5.57293 5.66128 5.75099 5.84208 5.93456 6.02847 6.12381 6.12381 6.22062 6.31892	4.8593 - 6 4.8613 4.8632 4.8652 4.8672 4.8692 4.8711 4.8731 4.8751 4.8771	8.02786 - 1 8.03112 8.03439 8.03765 8.04091 8.04418 8.04744 8.05070 8.05396 8.05722
31000 31100 31200 31300 31400 31500 31600 31700 31800 31900	30850 30949 31048 31147 31246 31345 31444 31543 31642 31741	302.368 302.433 302.499 302.565 302.631 302.696 302.762 302.828 302.828 302.893	1.4806 - 5 1.4811 1.4817 1.4822 1.4827 1.4833 1.4838 1.4849	8.27443 - 1 8.27741 8.28038 8.28336 8.28634 8.28634 8.29929 8.29526 8.29526	9.3759 - 4 9.5240 9.6742 9.8268 9.9817 1.0139 - 3 1.0299 1.0461 1.0625 1.0792	6.41872 + 1 6.52004 6.62292 6.72738 6.83342 6.94109 7.05041 7.16139 7.27407 7.38847	4.8790 - 6 4.8810 4.8830 4.8850 4.8869 4.8869 4.8909 4.8928 4.8948	8.06048 - 1 8.06375 8.06701 8.07026 8.07352 8.07678 8.08004 8.080330 8.08656 8.08981
32000 32200 32400 32600 32800 33000 33200 33400 33600 33800	31840 32038 32236 32434 32632 32830 33027 33225 33423 33621	303.025 303.201 303.568 303.935 304.301 304.667 305.032 305.397 305.761 306.125	1.4859 - 5 1.4874 1.4903 1.4933 1.4963 1.4992 1.5022 1.5052 1.5081 1.5111	8.30418 - 1 8.31215 8.32877 8.34537 8.34595 8.37852 8.39506 8.41159 8.42810 8.44459	1.0962 - 3 1.1315 1.1706 1.2109 1.2525 1.2955 1.3397 1.3854 1.4825	7.50461 + 1 7.74642 8.01392 8.28995 8.57476 8.86861 9.17176 9.48447 9.80703 1.01397 + 2	4.8988 - 6 4.9041 4.9151 4.9261 4.9371 4.9481 4.9591 4.9701 4.9811	8.09307 - 1 8.10181 8.12004 8.13825 8.15645 8.17465 8.17465 8.17283 8.21100 8.22916 8.24731
34000 34200 34400 34600 34800 35000 35200 35400 35600 35800	33819 34017 34215 34413 34610 34808 35006 35204 35402 35599	306.489 306.852 307.214 307.577 307.938 308.299 308.660 309.021 309.380 309.740	1.5140 - 5 1.5169 1.5199 1.5228 1.5258 1.5267 1.5316 1.5345 1.5375	8.46106 - 1 8.47751 8.49394 8.51036 8.52676 8.54314 8.55950 8.57584 8.59217	1.5312 - 3 1.5829 1.6362 1.6912 1.7478 1.8062 1.8665 1.9285 1.9925 2.0584	1.04828 + 2 1.08367 1.12015 1.15777 1.19656 1.23654 1.27776 1.32025 1.36405	5.0031 - 6 5.0141 5.0250 5.0360 5.0470 5.0579 5.0688 5.0798 5.0798 5.0907	8.26545 - 1 8.28358 8.30170 8.31980 8.33790 8.35599 8.37406 8.39213 8.41018 8.42822
36000 36200 36400 36600 36800 37000 37200 37400 37600 37800	35797 35995 36193 36390 36588 36786 36984 37181 37379 37577	310.099 310.457 310.816 311.173 311.531 311.687 312.244 312.600 312.955 313.310	1.5433 - 5 1.5462 1.5491 1.5520 1.55549 1.5578 1.5607 1.5636 1.5665	8.62476 - 1 8.64103 8.65729 8.67352 8.68974 8.70594 8.72212 8.73829 8.75443 8.77056	2.1264 - 3 2.1964 2.2685 2.3829 2.4194 2.4983 2.5796 2.6633 2.7495 2.8383	1.45570 + 2 1.50363 1.55302 1.60391 1.65633 1.71034 1.76598 1.82328 1.88231 1.94309	5.1125 - 6 5.1235 5.1344 5.1452 5.1561 5.1670 5.1779 5.1888 5.1996 5.2105	8.44625 - 1 8.46428 8.48229 8.50029 8.51828 8.53625 8.55422 8.57218 8.59013 8.60806
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GEOPOTENTIAL ALTITUDE, METRIC UNITS

Altit	ude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
Н, т	Z, m	C _S ,	μ, kg m ⁻ 'sec ⁻ '	$\frac{\mu}{\mu_0}$	η, m² sec-'	$\frac{\eta}{\eta_0}$	k, k-cal m ⁻¹ sec ⁻¹ (^a K) ⁻¹	k k _o
38000 38200 38400 38600 38800 39000 39200 39400 39600	38229 38431 38633 38836 39038 39241 39443 39646 39848 40051	314.070 314.428 314.786 315.143 315.500 315.856 316.212 316.568 316.923 317.278	1.5756 - 5 1.5785 1.5814 1.5843 1.5872 1.5901 1.5930 1.5959 1.5958	8.80506 - 1 8.82133 8.83758 8.85382 8.87004 8.88624 8.90242 8.91859 8.93474 8.95088	3.0376 - 3 3.1361 3.2377 3.3422 3.4499 3.5608 3.6750 3.7926 3.9136 4.0383	2.07951 + 2 2.14699 2.21648 2.28806 2.36178 2.43769 2.51587 2.59636 2.67924 2.76456	5.2337 - 6 5.2447 5.2557 5.2666 5.2776 5.2885 5.2994 5.3104 5.3213 5.3322	8.64646 - 1 8.66458 8.68269 8.70079 8.71887 8.73695 8.75502 8.77308 8.77313 8.80917
40000 40200 40400 40600 40800 41000 41200 41400 41600 41800	40253 40456 40458 40861 41064 41266 41469 41671 41874 42077	317.633 317.987 318.340 318.694 319.046 319.399 319.751 320.103 320.454 320.805	1.6045 - 5 1.6074 1.6103 1.6132 1.6132 1.6189 1.6218 1.6246 1.6275 1.6304	8.96700 - 1 8.98310 8.99919 9.01525 9.03131 9.04734 9.06336 9.07937 9.09536 9.11133	4.1666 - 3 4.2986 4.4346 4.5745 4.7186 4.8668 5.0193 5.1762 5.3377 5.5039	2.85240 + 2 2.94282 3.03590 3.13170 3.23029 3.33176 3.43618 3.54363 3.65418 3.76793	5.3431 - 6 5.3540 5.3649 5.3758 5.3867 5.3976 5.4085 5.4194 5.4302 5.4411	8.82721 - 1 8.84523 8.86324 8.88124 8.89923 8.91721 8.93518 8.95314 8.97110
42000 42200 42400 42600 42800 43000 43200 43400 43600 43800	42279 42482 42685 42887 43090 43293 43496 43698 43698 43104	321.156 321.506 321.856 322.205 322.554 322.903 323.251 323.599 323.946 324.294	1.6332 - 5 1.6361 1.6389 1.6418 1.6446 1.6475 1.6503 1.6531 1.6560 1.6588	9.12728 - 1 9.14322 9.15915 9.17506 9.17506 9.20682 9.22268 9.223853 9.23853 9.25436 9.27017	5.6748 - 3 5.8507 6.0316 6.2177 6.4090 6.6059 6.8083 7.0165 7.2305 7.4507	3.88496 + 2 4.00534 4.12918 4.25657 4.38759 4.52234 4.66093 4.80344 4.94999	5.4519 - 6 5.4628 5.4736 5.4845 5.4953 5.5061 5.5170 5.5278 5.5386 5.5494	9.00697 - 1 9.02489 9.04281 9.06071 9.07860 9.09649 9.11436 9.13223 9.15008 9.16792
44000 44200 44400 44600 44800 45000 45200 45400 45600	44307 44510 44712 44915 45118 45321 45524 45527 45930 46132	324.640 324.987 325.333 325.679 526.024 326.369 326.714 327.058 327.402 327.745	1.6616 - 5 1.6644 1.6673 1.6701 1.6729 1.6757 1.6813 1.68841 1.6869	9.28597 - 1 9.30175 9.31751 9.33326 9.34900 9.36471 9.38042 9.39611 9.41178 9.42743	7.6770 - 3 7.9096 8.1488 8.3947 8.6475 8.9073 9.1743 9.4487 9.7307 1.0021 - 2	5.25560 + 2 5.41488 5.57863 5.74697 5.92000 6.09786 6.28066 6.46854 6.66161 6.86002	5.5602 - 6 5.5710 5.5817 5.5925 5.6033 5.6141 5.6248 5.6356 5.6463 5.6571	9.18576 - 1 9.20358 9.22140 9.23921 9.25700 9.27479 9.29256 9.31033 9.32809 9.34583
46000 46200 46400 46600 46800 47000 47200 47400 47600 47800	46335 46538 46741 46944 47147 47350 47553 47756 47959 48162	328.088 328.431 328.773 329.116 329.457 329.799 329.799 329.799 329.799 329.799	1.6897 - 5 1.6925 1.6981 1.7009 1.7037 1.7037 1.7037	9.44308 - 1 9.45870 9.47431 9.48991 9.50549 9.52105 9.52105 9.52105 9.52105 9.52105	1.0318 - 2 1.0624 1.0939 1.1262 1.1594 1.1935 1.2240 1.2553 1.2873 1.3203	7.06390 + 2 7.27338 7.48862 7.70975 7.93692 8.17029 8.37918 8.59340 8.81311 9.03843	5.6678 - 6 5.6785 5.6893 5.7000 5.7107 5.7214 5.7214 5.7214 5.7214	9.36357 - 1 9.38130 9.39902 9.41672 9.43442 9.45211 9.45211 9.45211 9.45211
#8000 #8200 #8400 #8600 #9000 #9200 #9400 #9600	48365 48568 48771 48974 49178 49381 49584 49787 49990 50193	329.799 329.799 329.799 329.799 329.799 329.799 329.799 329.799 329.799 329.799	1.7037 - 5 1.7037 1.7037 1.7037 1.7037 1.7037 1.7037 1.7037 1.7037	9.52105 - 1 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105	1.3540 - 2 1.3886 1.4241 1.4605 1.4979 1.5362 1.5755 1.6157 1.6570	9.26951 + 2 9.50651 9.74956 9.99882 1.02545 + 3 1.05166 1.07855 1.10613 1.13441	5.7214 - 6 5.7214 5.7214 5.7214 5.7214 5.7214 5.7214 5.7214 5.7214 5.7214	9.45211 - 1 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211
50000 50500 51000 51500 52000 52500 53500 53500 54500	50396 50904 51413 51921 52429 52937 53446 53954 53463 54971	329.799 329.799 329.799 529.799 329.799 329.189 328.578 327.966 327.353 326.738	1.7037 - 5 1.7037 1.7037 1.7037 1.7037 1.6987 1.6987 1.6887 1.6887	9.52105 - 1 9.52105 9.52105 9.52105 9.52105 9.49325 9.46539 9.46539 9.43749 9.40954 9.38154	1.7429 - 2 1.8564 1.9773 2.1062 2.2434 2.3740 2.5128 2.6602 2.8169 2.9835	1.19315 + 3 1.27088 1.35368 1.44187 1.53580 1.62524 1.72025 1.82119 1.92846 2.04247	5.7214 - 6 5.7214 5.7214 5.7214 5.7214 5.7023 5.6831 5.6640 5.6448 5.6256	9.45211 - 1 9.45211 9.45211 9.45211 9.45211 9.45211 9.42052 9.38889 9.35724 9.32555 9.29383
55000 55500 56000 56500 57000 57500 58500 58500 59500	55480 55989 56498 57007 57516 58025 58534 59043 59553 60062	326.123 325.506 324.888 324.269 323.649 323.027 322.405 321.781 321.156 320.529	1.6737 - 5 1.6687 1.6636 1.6586 1.6585 1.6485 1.6434 1.6383 1.6382	9.35349 - 1 9.32539 9.29724 9.26904 9.24079 9.21249 9.18414 9.15574 9.12728 9.09878	3.1606 - 2 3.3489 3.5492 3.7622 3.9890 4.2304 4.4874 4.7610 5.0525 5.3631	2.16370 + 3 2.29261 2.42973 2.57561 2.73085 2.89610 3.07203 3.25938 3.45894 3.67156	5.6064 - 6 5.5871 5.5679 5.5486 5.5293 5.5100 5.4907 5.4713 5.4519 5.4326	9.26208 - 1 9.23030 9.19849 9.16665 9.13478 9.10287 9.07094 9.03897 9.00697 8.97494

TABLE III. — Continued GEOMETRIC ALTITUDE, METRIC UNITS

Altit	lude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
Z, m	H, m	C _S ,	μ, kg m ⁻¹ sec ⁻¹	$\frac{\mu}{\mu_0}$	η, m² sec-1	$\frac{\eta}{\eta_0}$	k , k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k k _o
38000 38200 38400 38600 38600 39000 39200 39400 39600 39800	37774 37772 38169 38367 38565 38762 38960 39157 39355 39552	313.665 314.019 314.373 314.727 315.080 315.432 315.785 316.136 316.488 316.839	1.5723 - 5 1.5751 1.5780 1.5809 1.5838 1.5866 1.5895 1.5924 1.5952	8.78667 - 1 8.80277 8.81884 8.83490 8.85094 8.86697 8.88298 8.89897 8.91494 8.93090	2.9298 - 3 3.0239 3.1209 3.2207 3.3235 3.4293 3.5382 3.6503 3.7657 3.8844	2.00569 + 2 2.07016 2.13653 2.20487 2.27523 2.34766 2.4222 2.49897 2.57797 2.65926	5.2213 - 6 5.2322 5.2430 5.2538 5.2647 5.2755 5.2863 5.2971 5.3079 5.3187	8.62599 - 1 8.64390 8.66181 8.67970 8.69758 8.71545 8.73331 8.75116 8.76900 8.78683
40000 40200 40400 40600 40600 41000 41400 41600 41800	39750 39947 40145 40342 40540 40737 40935 41132 41329 41527	317.189 317.539 317.889 318.238 318.587 318.936 319.284 319.632 319.979 320.326	1.6009 - 5 1.6038 1.6066 1.6095 1.6123 1.6151 1.6180 1.6208 1.6236 1.6265	8.94683 - 1 8.96275 8.97866 8.99455 9.01042 9.02627 9.04211 9.05793 9.07373	4.0067 - 3 4.1324 4.2618 4.3950 4.5320 4.6729 4.8179 4.9670 5.1204 5.2782	2.74293 + 2 2.82903 2.91762 3.00877 3.10255 3.19904 3.29829 3.40038 3.50540 3.61341	5.3295 - 6 5.3403 5.3510 5.3618 5.3726 5.3833 5.3941 5.4048 5.4155 5.4263	8.80465 - 1 8.82246 8.84026 8.85804 8.87582 8.87582 8.91134 8.92908 8.94681 8.96454
42000 42200 42400 42600 42600 43000 43200 43400 43600 43800	41724 41922 42119 42316 42514 42711 42908 43106 43303 43500	320.672 321.018 321.364 321.709 322.054 322.399 322.743 323.087 323.430 323.773	1.6293 - 5 1.6321 1.6349 1.6377 1.6405 1.6433 1.6461 1.6490 1.6517 1.6545	9.10528 - 1 9.12104 9.13677 9.15249 9.16820 9.18388 9.19955 9.21520 9.23084 9.24646	5.4404 - 3 5.6073 5.7789 5.9553 6.1367 6.3233 6.5150 6.7121 6.9147 7.1230	3.72449 + 2 3.83872 3.95619 4.07698 4.20117 4.32886 4.46013 4.59507 4.73379 4.87637	5.4370 - 6 5.4477 5.4584 5.4691 5.4798 5.4905 5.5012 5.5118 5.5225 5.5332	8.98225 - 1 8.99995 9.01764 9.03532 9.05299 9.07065 9.08829 9.10593 9.12356 9.14117
44000 44200 44400 44600 45000 45200 45400 45600 45600	43697 43895 44092 44289 44486 44684 44881 45078 45275 45472	324.116 324.458 324.800 325.141 325.482 325.823 326.163 326.503 326.503 326.843 327.182	1.6573 - 5 1.6601 1.6629 1.6657 1.6685 1.6713 1.6740 1.6768 1.6796 1.6823	9.26207 - 1 9.27765 9.29323 9.30878 9.32432 9.33984 9.35535 9.37084 9.38632 9.40177	7.3371 - 3 7.5571 7.7832 8.0155 8.2543 8.4996 8.7516 9.0105 9.2766 9.5498	5.02292 + 2 5.17353 5.32831 5.48737 5.65081 5.81875 5.99129 6.16856 6.35068 6.53775	5.5438 - 6 5.5545 5.5651 5.5758 5.5864 5.5970 5.6076 5.6183 5.6289 5.6395	9.15878 - 1 9.17638 9.19396 9.21153 9.22910 9.24665 9.26419 9.28172 9.29924 9.31675
46000 46200 46400 46600 47000 47200 47400 47400 47600 47800	45669 45867 46064 46261 46458 46655 46852 47049 47246 47443	327.521 327.859 328.198 328.535 328.873 329.210 329.546 329.799 329.799 329.799	1.6851 - 5 1.6879 1.6906 1.6934 1.6961 1.6989 1.7016 1.7037 1.7037	9.41722 - 1 9.43264 9.44806 9.46345 9.47883 9.49419 9.50954 9.52105 9.52105	9.8305 - 3 1.0119 - 2 1.0415 1.0719 1.1031 1.1352 1.1681 1.2009 1.2311	6.72992 + 2 6.92730 7.13002 7.33823 7.55204 7.77161 7.99707 8.22111 8.42815 8.64039	5.6501 - 6 5.6606 5.6712 5.6818 5.6924 5.7029 5.7135 5.7214 5.7214	9.33425 - 1 9.35174 9.36922 9.38669 9.40415 9.42159 9.43903 9.45211 9.45211
48000 48200 48400 48600 48600 49000 49200 49400 49600 49800	47640 47837 48034 48231 48428 48625 48622 49019 49216 49413	329.799 329.799 329.799 329.799 329.799 329.799 329.799 329.799 329.799 329.799	1.7037 - 5 1.7037 1.7037 1.7037 1.7037 1.7037 1.7037 1.7037 1.7037	9.52105 - 1 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105	1.2939 - 2 1.3265 1.3599 1.3941 1.4292 1.4652 1.5021 1.5399 1.5786 1.6184	8.85796 + 2 9.08100 9.30964 9.54402 9.78428 1.00306 + 3 1.02831 1.05419 1.08072 1.10792	5.7214 - 6 5.7214 5.7214 5.7214 5.7214 5.7214 5.7214 5.7214 5.7214 5.7214	9.45211 - 1 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211
50000 50500 51500 51500 52000 52500 53500 54000 54500	49610 50102 50594 51086 51578 52070 52562 53053 53545 54037	329.799 329.799 329.799 329.799 329.799 329.713 329.114 328.513 327.911 327.308	1.7037 - 5 1.7037 1.7037 1.7037 1.7037 1.7030 1.6981 1.6982 1.6883 1.6834	9.52105 - 1 9.52105 9.52105 9.52105 9.52105 9.52105 9.51717 9.48981 9.46241 9.43497 9.43497	1.6591 - 2 1.7654 1.8786 1.9989 2.1270 2.2612 2.3907 2.5281 2.6740 2.8288	1.13580 + 3 1.28606 1.28606 1.36846 1.45614 1.54798 1.63666 1.73074 1.83059 1.93658	5.7214 - 6 5.7214 5.7214 5.7214 5.7214 5.7187 5.6099 5.6811 5.6622 5.6434	9.45211 - 1 9.45211 9.45211 9.45211 9.45211 9.45211 9.44770 9.41662 9.38551 9.35438 9.32323
55000 55500 56000 56500 57000 57500 58500 58500 59600 59500	54528 55020 55511 56002 56493 56984 57476 57966 58457 58948	326.703 326.098 325.492 324.885 324.277 323.668 323.058 322.446 321.834 321.220	1.6784 ~ 5 1.6735 1.6686 1.6636 1.6537 1.6537 1.6487 1.6437 1.6387	9.37996 - 1 9.35239 9.32478 9.29712 9.26941 9.21388 9.18604 9.15816 9.13024	2.9932 - 2 3.1677 3.3531 3.5500 3.7593 3.9818 4.2182 4.4696 4.7370 5.0214	2.04910 + 3 2.16859 2.29551 2.43034 2.57361 2.72589 2.88776 3.05988 3.24293 3.43765	5.6245 - 6 5.6056 5.5867 5.5678 5.5489 5.5299 5.5109 5.4920 5.4730 5.4540	9.29205 - 1 9.26084 9.22961 9.19835 9.16707 9.13577 9.10444 9.07308 9.04170 9.01029

TABLE III — Concluded GEOPOTENTIAL ALTITUDE, METRIC UNITS

Altit	ude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal co	onductivity
H, m	Z, m	C _S ,	μ , kg m $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_{o}}$	η, m² sec-¹	$\frac{\eta}{\eta_0}$	k, k-cal m ⁻¹ sec ⁻¹ (°K) ⁻¹	k k _o
60000 60500 61000 61500 62000 62500 63500 64500 64500	60572 61081 61591 62101 62611 63121 63631 64141 64651 65161	319.902 319.273 318.643 317.379 316.111 314.837 313.558 312.273 310.984 309.689	1.6230 - 5 1.6179 1.6128 1.6025 1.5922 1.5818 1.5714 1.5610 1.5505 1.5400	9.07023 - 1 9.04162 9.01296 8.95549 8.89780 8.83990 8.78179 8.72347 8.66492 8.60616	5.6941 - 2 6.0469 6.4231 6.7763 7.1519 7.5516 7.9769 8.4299 8.9126 9.4271	3.89814 + 3 4.13968 4.39720 4.63902 4.89617 5.16975 5.46095 5.77108 6.10151 6.45376	5.4132 - 6 5.3937 5.3743 5.3353 5.2963 5.2572 5.2180 5.1788 5.1395 5.1001	8.94288 - 1 8.91079 8.87867 8.81433 8.74986 8.68527 8.62056 8.55572 8.49075 8.42566
65000 65500 66000 66500 67500 67500 68500 69000 69500	65672 66182 66693 67203 67714 68225 68735 69246 69757	308.388 307.083 305.771 304.454 303.131 301.802 300.468 299.127 297.781	1.5294 - 5 1.5188 1.5082 1.4975 1.4868 1.4760 1.4652 1.45544 1.4435	8.54718 - 1 8.48797 8.42853 8.36887 8.30899 8.24886 8.18851 8.12792 8.06710 8.00603	9.9760 - 2 1.0562 - 1 1.1187 1.1855 1.2569 1.3333 1.4150 1.5025 1.5963	6.82948 + 3 7.23042 7.65852 8.11587 8.60473 9.12757 9.68707 1.02862 + 4 1.09280 1.16161	5.0606 - 6 5.0211 4.9814 4.9417 4.9020 4.8621 4.8222 4.7822 4.7821 4.7019	8.36045 - 1 8.29511 8.22964 8.16405 8.16405 8.09834 8.03250 7.96654 7.90046 7.83425 7.76792
70000 70500 71000 71500 72000 72500 73000 73500 74000 74500	70780 71291 71802 72314 72825 73337 73848 74360 74872 75384	295.069 293.704 292.333 290.955 289.570 288.179 286.781 285.376 283.965 282.546	1.4216 - 5 1.4106 1.3795 1.3884 1.3773 1.3661 1.3549 1.3546 1.3323	7.94472 - 1 7.88317 7.82138 7.75933 7.69704 7.63449 7.57169 7.50864 7.44532 7.38174	1.8046 - 1 1.9203 2.0446 2.1782 2.3219 2.4766 2.6431 2.8225 3.0161 3.2250	1.23543 + 4 1.31466 1.39975 1.49121 1.58958 1.69543 1.80944 1.93230 2.06480 2.20780	4.6617 - 6 4.6214 4.5810 4.5406 4.5001 4.4595 4.4188 4.3781 4.3373 4.2964	7.701%6 - 1 7.63%88 7.56618 7.50136 7.43%42 7.36735 7.30017 7.23286 7.165%4 7.09789
75000 75500 76000 76500 77000 77500 78500 78500 79000 79500	75896 76408 76920 77432 77944 78957 78969 79482 79994 80507	281.12 279.69 278.25 276.80 275.34 273.88 272.41 270.93 269.44	1.309 - 5 1.298 1.286 1.275 1.263 1.252 1.240 1.228 1.216	7.3179 - 1 7.2538 7.1894 7.1248 7.0599 6.9947 6.9292 6.8635 6.7974	3.451 - 1 3.694 3.958 4.244 4.553 4.889 5.253 5.648 6.078	2.3623 + 4 2.5292 2.7098 2.7053 3.1171 3.3468 3.5960 3.8668 4.1611 4.5738	4.255 - 6 4.214 4.173 4.132 4.091 4.050 4.008 3.967 3.925 3.925	7.0302 - 1 6.9625 6.8946 6.8265 6.7584 6.6902 6.6218 6.5534 6.4848
80000 80500 81000 81500 82000 82500 83500 83500 84500	81020 81533 82046 82559 83072 83585 84098 84612 85125 85639	269.44 269.44 269.44 269.44 269.44 269.44 269.44 269.44	1.216 - 5 1.216 1.216 1.216 1.216 1.216 1.216 1.216 1.216 1.216	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	7.344 - 1 8.072 8.872 9.752 1.072 + 0 1.178 1.295 1.424 1.565 1.720	5.0274 + % 5.5259 6.0739 6.6763 7.3384 8.0661 8.8661 9.7453 1.0712 + 5	3.925 - 6 3.925 3.925 3.925 3.925 3.925 3.925 3.925 3.925 3.925	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
85000 85500 86000 86500 87000 87500 88500 88500 89500	86152 86666 87180 87693 88207 88721 89236 89750 90264 90778	269.44 269.44 269.44 269.44 269.44 269.44 269.44 269.44 270.03	1.216 - 5 1.216 1.216 1.216 1.216 1.216 1.216 1.216 1.216 1.221 1.230	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.8741	1.890 + 0 2.078 2.284 2.510 2.759 3.033 3.334 3.665 4.061 4.531	1.2942 + 5 1.4225 1.5636 1.7187 1.8891 2.0764 2.2824 2.5087 2.7799 3.1019	3.925 - 6 3.925 3.925 3.925 3.925 3.925 3.925 3.925 3.925 3.925 3.942 3.973	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
90000	91293	272.32	1.239 - 5	6-9245 — 1	5.051 + 0	3.4580 + 5	4.005 - 6	6.6170 - 1
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TABLE III. — Concluded GEOMETRIC ALTITUDE, METRIC UNITS

A 14:4	da	Sound	Coefficient	afinanik	Kinometie	viceority	Thormal	onductivity
Altit	iuae T	speed	Coefficient	of viscosity	Kinematic	·	Thermal c	
Z, m	H, m	C _S ,	μ, kg m ⁻¹ sec ⁻¹	$\frac{\mu}{\mu_0}$	η, m² sec⁻¹	$\frac{\eta}{\eta_{o}}$	k, k-cal m ⁻¹ sec ^{-1(o} K) ⁻¹	<u>k</u> k _o
60000 60500 61000 61500 62000 62500 63000 63500 64000 64500	59439 59930 60420 60911 61401 61891 62382 62872 63362 63852	320.606 319.990 319.374 318.756 317.630 316.387 315.139 313.886 312.628 311.366	1.6287 - 5 1.6237 1.6187 1.6137 1.6045 1.5944 1.5843 1.5741 1.5638 1.5536	9.10227 - 1 9.07425 9.04619 9.01809 8.96688 8.91035 8.85363 8.79671 8.73959 8.68227	5.3241 - 2 5.6462 5.9890 6.3541 7.0684 7.4547 7.8653 8.3020 8.7665	3.64484 + 3 3.86533 4.10004 4.34994 4.58998 4.83895 5.10345 5.38457 5.68350 6.00151	5.4349 - 6 5.4159 5.3968 5.3778 5.3431 5.3048 5.2665 5.2281 5.1896 5.1511	8.97886 - 1 8.94740 8.91592 8.88441 8.82707 8.76388 8.70057 8.63716 8.57363 8.50999
65000 65500 66000 66500 67000 67000 68000 68500 69500	64342 64832 65322 65811 66301 66791 67280 67770 68259 68748	310.099 308.826 307.549 306.266 304.979 303.686 302.387 301.084 299.774 298.460	1.5433 - 5 1.5330 1.5226 1.5122 1.5018 1.4913 1.4808 1.4702 1.4596 1.4490	8.62476 - 1 8.56703 8.569711 8.45098 8.39264 8.33469 8.27533 8.21635 8.15716 8.09775	9.2609 - 2 9.7874 1.0348 - 1 1.0946 1.1584 1.2264 1.2991 1.3767 1.4596 1.5483	6.33998 + 3 6.70042 7.08442 7.49374 7.93027 8.39607 8.89335 9.42453 9.99222 1.05993 + 4	5.1125 - 6 5.0739 5.0352 4.9964 4.9575 4.9186 4.8796 4.8406 4.8015 4.7623	8.44625 - 1 8.38239 8.31842 8.25435 8.19016 8.12587 8.06147 7.99695 7.93233 7.86760
70000 70500 71000 71500 72000 72500 73000 73500 74000 74500	69237 69727 70216 70705 71193 71682 72171 72660 73148 73637	297.139 295.813 294.482 293.144 291.800 290.451 289.095 287.733 286.365 284.991	1.4383 - 5 1.4276 1.4169 1.4061 1.3953 1.3844 1.3735 1.3625 1.3515	8.03813 - 1 7.97828 7.91821 7.85792 7.79740 7.73665 7.67567 7.611446 7.55301 7.49133	1.6431 - 1 1.7447 1.8535 1.9701 2.0952 2.2294 2.3736 2.5284 2.6949 2.8741	1.12488 + 4 1.19442 1.26890 1.34874 1.43436 1.52625 1.62492 1.73094 1.84493	4.7230 - 6 4.6837 4.6443 4.6049 4.5654 4.5258 4.4862 4.4465 4.4067 4.3669	7.80276 - 1 7.73782 7.67276 7.60760 7.54234 7.47696 7.41148 7.34590 7.28021 7.21442
75000 75500 76000 76500 77600 77500 78000 78500 79000 79500	74125 74614 75102 75590 76078 76566 77054 77542 78030 78518	283.61 282.22 280.83 279.43 278.02 276.61 275.18 273.76 272.32 270.88	1.329 - 5 1.318 1.307 1.296 1.285 1.273 1.262 1.251 1.239 1.228	7.4294 - 1 7.3673 7.3049 7.2422 7.1793 7.1162 7.0528 6.9891 6.9253 6.8611	3.067 - 1 3.275 3.499 3.741 4.001 4.283 4.588 4.918 5.276 5.663	2.0996 + 4 2.2419 2.3952 2.5607 2.7394 2.9324 3.1412 3.3671 3.6117 3.8769	4.327 - 6 4.287 4.247 4.207 4.167 4.127 4.086 4.046 4.006 3.965	7.1485 - 1 7.0825 7.0164 6.9502 6.8839 6.8175 6.7510 6.6844 6.6177 6.5509
80000 80500 81000 81500 82000 83500 83500 84000 84500	79006 79493 79981 80468 80956 81443 81930 82417 82904 83391	269.44 269.44 269.44 269.44 269.44 269.44 269.44 269.44	1.216 - 5 1.216 1.216 1.216 1.216 1.216 1.216 1.216 1.216 1.216 1.216	6.7974 — 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	6.085 - 1 6.672 7.317 8.023 8.798 9.647 1.058 + 0 1.160 1.272 1.395	4.1655 + 4 4.5679 5.0090 5.4927 6.0231 6.6045 7.2420 7.9409 8.7071 9.5470	3.925 - 6 3.925 3.925 3.925 3.925 3.925 3.925 3.925 3.925 3.925	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
85000 85500 86000 86500 87600 87500 88000 88500 89500	83878 84365 84852 85339 85825 86312 86798 87285 87771 88257	269.44 269.44 269.44 269.44 269.44 269.44 269.44 269.44 269.44	1.216 - 5 1.216 1.216 1.216 1.216 1.216 1.216 1.216 1.216 1.216 1.216	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	1.529 + 0 1.677 1.838 2.015 2.210 2.423 2.656 2.912 3.193 3.500	1.0468 + 5 1.1477 1.2584 1.3797 1.5127 1.6585 1.8184 1.9936 2.1856 2.3961	3.925 - 6 3.925 3.925 3.925 3.925 3.925 3.925 3.925 3.925 3.925	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
90000	88743	269-44	1.216 - 5	6.7974 - 1	3.837 + 0	2.6268 + 5	3.925 - 6	6.4848 - 1

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Table IV TEMPERATURE, PRESSURE, AND DENSITY English Units

Note: A one- or two-digit number (preceded by a plus or minus sign) following the initial entry of each block indicates the power of ten by which that entry and each succeeding entry of that block should be multiplied. A change of power occurring within a block is indicated by a similar notation.

TABLE IX
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altii	ude .	Т	emperatur	e		Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _o	ρ, lb ft ⁻³	<u>ρ</u> ρ _ο
-16500 -16400 -16300 -16200 -16100	-16487 -16387 -16287 -16187 -16088	577.512 577.155 576.798 576.442 576.085	117.842 117.485 117.128 116.772 116.415	47.690 47.492 47.294 47.095 46.897	1.78241 + 3 1.77663 1.77087 1.76512 1.75939	5.26344 + 1 5.24638 5.22936 5.21239 5.19547	1.75910 + 0 1.75340 1.74771 1.74204 1.73638	1.2082 - 1 1.2050 1.2019 1.1987 1.1955	1.5799 + 0 1.5757 1.5716 1.5674 1.5633
-16000 -15900 -15800 -15700 -15600 -15500 -15300 -15200 -15100	-15988 -15888 -15788 -15688 -15588 -15488 -15389 -15289 -15189 -15089	575.729 575.372 575.015 574.659 574.302 573.945 573.589 573.232 572.876 572.519	116.059 115.702 115.345 114.989 114.632 114.275 113.919 113.562 113.206 112.849	46.699 46.501 46.303 46.105 45.709 45.709 45.312 45.312	1.75367 + 3 1.74797 1.74228 1.73661 1.73095 1.72531 1.71969 1.71407 1.70848 1.70289	5.17859 + 1 5.16175 5.14496 5.12821 5.11150 5.07484 5.07823 5.06165 5.04513 5.02864	1.73074 + 0 1.72511 1.71950 1.71390 1.70832 1.70275 1.69720 1.69166 1.68613 1.68062	1.1924 - 1 1.1893 1.1861 1.1830 1.1799 1.1768 1.1736 1.1735 1.1675	1.5592 + 0 1.5551 1.55510 1.5469 1.5428 1.5388 1.5347 1.5306 1.5266
-15000 -14900 -14800 -14700 -14600 -14500 -14500 -14200 -14200	- 14989 - 14889 - 14790 - 14690 - 14690 - 1490 - 14290 - 14190 - 14090	572.162 571.806 571.449 571.093 570.736 570.379 570.023 569.666 569.309 568.953	112.492 112.136 111.779 111.423 111.066 110.709 110.353 109.996 109.639 109.283	44.718 44.520 44.322 44.127 43.727 43.529 43.331 43.133 42.935	1.69733 + 3 1.69177 1.68623 1.68623 1.68071 1.67520 1.66971 1.66423 1.65876 1.65876	5.01220 + 1 4.99580 4.97945 1.96314 4.94687 4.93065 4.91447 4.89833 4.888223 4.86618	1.67513 + 0 1.66965 1.66418 1.65873 1.65330 1.64370 1.64247 1.63707 1.63169 1.62633	1.1613 - 1 1.1582 1.1551 1.1551 1.1521 1.1490 1.1460 1.1429 1.1399 1.1368 1.1338	1.5185 + 0 1.5145 1.5105 1.5005 1.5025 1.4985 1.4985 1.4905 1.4866
-14000 -13900 -13800 -13700 -13600 -13500 -13500 -13200 -13200 -13100	-13991 -13891 -13791 -13691 -13591 -13491 -13391 -13292 -13192 -13192	568.596 568.240 567.883 567.526 567.170 566.813 566.457 566.100 565.743 565.387	108.926 108.570 108.213 107.856 107.500 107.143 106.787 106.430 106.073 105.717	42.737 42.539 42.341 42.142 41.944 41.746 41.350 41.350 41.152	1.64246 + 3 1.63705 1.63166 1.62628 1.62091 1.61556 1.61023 1.60091 1.57940	4.85017 + 1 4.83420 4.81828 4.80240 4.78656 4.77076 4.75501 4.73929 4.72362 4.70799	1.62098 + 0 1.61564 1.61032 1.60501 1.59972 1.59444 1.58917 1.58392 1.57346	1.1308 - 1 1.1278 1.1248 1.1218 1.1158 1.1158 1.1128 1.1098 1.1068 1.1039	1.4786 + 0 1.4747 1.4747 1.4708 1.4668 1.4629 1.4550 1.4551 1.4512 1.4473
-13000 -12900 -12800 -12700 -12400 -12500 -12400 -12300 -12200 -12100	-12992 -12892 -12792 -12692 -12592 -12593 -12293 -12293 -12193 -12193	565.030 564.673 564.317 563.960 563.604 563.247 562.890 562.534 562.177 561.821	105.360 105.003 104.647 104.290 103.934 103.577 103.220 102.864 102.507 102.151	40.756 40.557 40.359 40.361 39.963 39.765 39.567 39.369 39.171 38.973	1.58903 + 3 1.58377 1.57852 1.57328 1.56806 1.56285 1.55766 1.55248 1.54216	4.69241 + 1 4.67686 4.66136 4.64590 4.63048 4.61510 4.59976 4.58447 4.56921 4.55900	1.56825 + 0 1.56306 1.55788 1.55271 1.54755 1.54241 1.53729 1.53218 1.52708	1.1009 - 1 1.0980 1.0950 1.0921 1.0891 1.0862 1.0833 1.0804 1.0774	1.4396 + 0 1.4357 1.4319 1.4280 1.4242 1.4203 1.4165 1.4127 1.4089 1.4051
-12000 -11900 -11800 -11600 -11600 -11500 -11400 -11200 -11100	-11993 -11893 -11793 -11693 -11594 -11494 -11394 -11194 -11194	561.464 561.107 560.751 560.37 560.037 559.681 559.324 558.968 558.611 558.254	101.79% 101.437 101.081 100.724 100.367 100.011 99.65% 99.298 98.9%1 98.58%	38.774 38.576 38.378 38.180 37.982 37.784 37.388 37.189 36.991	1.53702 + 3 1.53190 1.52679 1.52169 1.51661 1.51154 1.50649 1.50144 1.49642 1.49140	4.53883 + 1 4.52369 4.50860 4.49355 4.47855 4.46358 4.44865 6.43376 4.41891 4.40411	1.51692 + 0 1.51187 1.50682 1.50179 1.49678 1.49177 1.48679 1.48181 1.47685 1.47190	1.0716 - 1 1.0687 1.0659 1.0630 1.0601 1.0572 1.0584 1.0515 1.0487	1.4013 + 0 1.3975 1.3937 1.3900 1.3862 1.3825 1.3787 1.3750 1.3713 1.3675
-11000 -10900 -10800 -10700 -10600 -10500 -10400 -10300 -10200 -10100	- 10994 - 10894 - 10794 - 10695 - 10595 - 10495 - 10395 - 10295 - 10195 - 10095	557.898 557.541 557.185 556.871 556.115 555.758 555.401 555.045 554.688	98-228 97-871 97-515 97-155 96-801 96-845 96-088 95-731 95-375 95-018	36.793 36.595 36.397 36.199 36.001 35.803 35.604 35.406 35.208	1.48640 + 3 1.48141 1.47644 1.47148 1.4663 1.4663 1.45668 1.45178 1.4668 1.4508	4.38934 + 1 4.37461 4.35993 4.34528 4.33067 4.31611 4.30158 4.28709 4.27264 4.25824	1.46696 + 0 1.46204 1.45713 1.45224 1.44736 1.4436 1.43269 1.43279 1.42796 1.42315	1.0430 - 1 1.0401 1.0373 1.0345 1.0317 1.0289 1.0261 1.0233 1.0205	1.3638 + 0 1.3601 1.3564 1.3527 1.3454 1.3417 1.3380 1.3384
-10000 -9900 -9800 -9700 -9600 -9500 -9500 -9300 -9200 -9100	- 9995 - 9895 - 9795 - 9695 - 9696 - 9496 - 9396 - 9196 - 9096	55%.332 553.975 553.618 553.262 552.905 552.549 552.192 551.879 551.479	94.662 94.305 93.948 93.592 93.235 92.879 92.522 92.165 91.452	34.812 34.614 34.416 34.218 34.020 33.821 33.623 33.425 33.227 33.029	1.43714 + 3 1.43229 1.42745 1.42262 1.41781 1.41301 1.40822 1.40345 1.39869 1.39394	4.24387 + 1 4.2295% 4.21525 4.20099 4.18678 4.17261 4.158%7 4.14438 4.13032 4.11630	1.41835 + 0 1.41356 1.40878 1.40402 1.39927 1.39453 1.38981 1.38509 1.38040 1.37571	1.0149 - 1 1.0121 1.0093 1.0066 1.0038 1.0011 9.9832 - 2 9.9558 9.9285 9.9285	1.3271 + 0 1.3235 1.3198 1.3162 1.3126 1.3090 1.3054 1.3019 1.2983 1.2947

TABLE IX
GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperatur	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P°	ρ , lb ft ⁻³	<u>ρ</u> Ρ ₀
-16500 -16400 -16300 -16200 -16100	-16513 -16413 -16313 -16213 -16112	577.558 577.201 576.844 576.487 576.130	117.888 117.531 117.174 116.817 116.460	47.716 47.517 47.319 47.120 46.922	1.78316 + 3 1.77737 1.77160 1.76584 1.76010	5.26567 + 1 5.24858 5.23153 5.21453 5.19757	1.75984 + 0 1.75413 1.74843 1.74275 1.73708	1.2086 - 1 1.2054 1.2023 1.1991 1.1959	1.5804 + 0 1.5763 1.5721 1.5680 1.5638
-16000 -15900 -15800 -15700 -15600 -15500 -15400 -15300 -15200 -15100	-16012 -15912 -15812 -15712 -15612 -15512 -15411 -15311 -15211	575.772 575.415 575.058 574.701 574.344 573.987 573.629 573.272 572.915 572.558	116.102 115.745 115.388 115.031 114.674 114.317 113.959 113.602 113.245 112.888	46.724 46.525 46.327 46.128 45.731 45.731 45.533 45.335 45.335	1.75%37 + 3 1.74866 1.74296 1.73728 1.73161 1.72596 1.72032 1.71%70 1.70910 1.70350	5.18066 + 1 5.16379 5.14697 5.13019 5.11345 5.09676 5.08012 5.06351 5.04696 5.03044	1.73143 + 0 1.72579 1.72017 1.71456 1.70897 1.70339 1.69783 1.69228 1.68675 1.68123	1.1928 - 1 1.1896 1.1865 1.1834 1.1802 1.1771 1.1740 1.1709 1.1678 1.1647	1.5597 + 0 1.5556 1.5515 1.5474 1.5433 1.5392 1.5352 1.5311 1.5270 1.5230
-15000 -14900 -14800 -14700 -14600 -14500 -14400 -14300 -14200 -14100	-15011 -14911 -14811 -14710 -14610 -14510 -14310 -14210 -14110	572.201 571.844 571.487 571.130 570.772 570.415 570.058 569.701 569.344 568.987	112.531 112.174 111.817 111.400 111.102 110.745 110.388 110.031 109.674 109.317	44.739 44.541 44.343 44.144 43.747 43.547 43.351 43.152 42.954	1.69793 + 3 1.69236 1.68682 1.68128 1.67577 1.67577 1.65930 1.65930 1.65384 1.648%	5.01397 + 1 4.99755 4.98117 4.96483 4.94853 4.93228 4.91607 4.89991 4.88379 4.86771	1.67572 + 0 1.67023 1.66476 1.65930 1.65385 1.64842 1.64300 1.63760 1.63221 1.62684	1.1616 - 1 1.1585 1.1555 1.1524 1.1493 1.1463 1.1432 1.1402 1.1371	1.5190 + 0 1.5189 1.5109 1.5069 1.5029 1.4989 1.4989 1.4909 1.4830
-14000 -13900 -13800 -13700 -13600 -13500 -13400 -13300 -13300 -13100	-14009 -13909 -13809 -13709 -13509 -13509 -13409 -13308 -13208	568.630 998.273 567.916 567.558 567.201 566.844 566.130 565.773 565.416	108.960 108.603 108.246 107.889 107.531 107.174 106.817 106.460 106.103 105.746	42.755 42.357 42.357 42.359 41.962 41.764 41.565 41.367 41.168 40.970	1.64297 + 3 1.63755 1.63215 1.62676 1.62139 1.61603 1.61069 1.60536 1.60005	4.85167 + 1 4.83568 4.81973 4.80383 4.78796 4.77214 4.75636 4.74063 4.72493 4.70928	1.62148 + 0 1.61618 1.61081 1.60549 1.60019 1.59490 1.58437 1.58437 1.57912	1.1311 - 1 1.1280 1.1250 1.1220 1.1190 1.1160 1.1130 1.1101 1.1071	1.4790 + 0 1.4751 1.4711 1.4672 1.4633 1.4594 1.4554 1.4515 1.4438
-13000 -12900 -12800 -12700 -12600 -12500 -12400 -12300 -12200 -12100	-13008 -12908 -12808 -12708 -12608 -12507 -12407 -12307 -12207 -12107	565.059 564.702 564.345 563.988 563.631 563.274 562.917 562.560 562.203 561.846	105.389 105.032 104.675 104.318 103.961 103.604 103.247 102.890 102.533 102.176	40.772 40.573 40.377 40.177 39.978 39.780 39.581 39.383 39.185 38.986	1.58946 + 3 1.58419 1.57893 1.57369 1.56846 1.56824 1.55804 1.55285 1.54252	4.69367 + 1 4.67810 4.66258 4.64709 4.63165 4.61625 4.60089 4.58558 4.57030 4.555507	1.56867 + 0 1.56347 1.55828 1.55311 1.54795 1.54280 1.53767 1.53255 1.52744 1.52235	1.1011 - 1 1.0982 1.0952 1.0954 1.0864 1.0835 1.0886 1.0777	1.4399 + 0 1.4360 1.4362 1.4283 1.4245 1.4206 1.4168 1.4130 1.4092
-12000 -11900 -11800 -11700 -11600 -11500 -11400 -11300 -11200 -11100	-12007 -11907 -11807 -11707 -11606 -11506 -11406 -11306 -11206 -11106	561.489 561.132 560.774 560.417 560.060 559.703 559.3%6 558.989 558.632 558.275	101.819 101.462 101.104 100.747 100.339 100.033 99.676 99.319 98.962 98.605	38.788 38.590 38.391 38.193 37.995 37.796 37.598 37.400 37.201 37.003	1.53738 + 3 1.53225 1.522713 1.52203 1.51694 1.51186 1.50680 1.50175 1.49672 1.49170	4.53987 + 1 4.52872 4.50961 4.49454 4.47951 4.46453 4.44958 4.43467 4.41981 4.40498	1.51727 + 0 1.51221 1.50716 1.50212 1.49710 1.49209 1.48710 1.48211 1.47715	1.0718 - 1 1.0689 1.0660 1.0632 1.0603 1.0574 1.0545 1.0517 1.088	1.4016 + 0 1.3978 1.3940 1.3902 1.3865 1.3827 1.3790 1.3752 1.3715
-11000 -10900 -10800 -10700 -10600 -10500 -10400 -10300 -10200 -10100	-11006 -10906 -10806 -10705 -10605 -10505 -10405 -10305 -10205 -10105	557.918 557.561 557.204 556.847 556.491 556.134 555.777 555.420 555.063 554.706	98.248 97.891 97.534 97.177 96.821 96.107 95.750 95.393 95.036	36.805 36.606 36.408 36.210 36.211 35.813 35.615 35.416 35.218 35.020	1.48669 + 3 1.48170 1.47672 1.47175 1.46680 1.46680 1.45694 1.45203 1.44713	4.39020 + 1 4.37545 4.36075 4.34608 4.33146 4.31068 4.30233 4.28763 4.27337 4.25894	1.46725 + 0 1.46232 1.45741 1.45251 1.45251 1.44762 1.44275 1.43789 1.43304 1.42620 1.42338	1.0431 - 1 1.0403 1.0375 1.0346 1.0318 1.0290 1.0262 1.0234 1.0234 1.0278	1.3640 + 0 1.3603 1.3566 1.3529 1.3492 1.3456 1.3419 1.3382 1.3346
-10000 -9900 -9800 -9700 -9600 -9500 -9400 -9300 -9200 -9100	-10005 -9905 -9805 -9705 -9604 -9504 -9404 -9304 -9204	554.349 553.692 553.635 553.278 552.921 552.507 551.850 551.493 551.136	94.679 94.322 93.965 93.608 93.251 92.894 92.537 92.180 91.823 91.466	34.821 34.425 34.425 34.227 34.028 33.630 33.632 33.433 33.235	1.43737 + 3 1.43251 1.42767 1.42284 1.41802 1.41221 1.40842 1.40365 1.39888 1.39413	4.24456 + 1 4.23021 4.21590 4.20164 4.18741 4.17322 4.15907 4.14496 4.13089	1.41858 + 0 1.41378 1.40900 1.40423 1.39948 1.39473 1.39001 1.38529 1.38059	1.0150 - 1 1.0122 1.0095 1.0067 1.0039 1.0012 9.9844 - 2 9.9569 9.9296 9.9022	1.3273 + 0 1.3236 1.3200 1.3164 1.3128 1.3092 1.3056 1.3020 1.2984

TABLE IV.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperatur			Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P _o	ρ, lb ft ⁻³	<u>ρ</u> <i>Ρ</i> ₀
-9000 -8900 -8800 -8700 -8600 -8500 -8400 -8300 -8200 -8100	-8996 -8896 -8796 -8696 -8596 -8497 -8397 -8297 -8197 -8097	550.765 550.409 550.52 549.696 549.339 548.922 548.626 548.269 547.912	91.095 90.739 90.382 90.026 89.669 89.312 88.956 88.599 88.243 87.886	32.831 32.633 32.435 32.236 32.038 31.840 31.642 31.444 31.246 31.048	1.38921 + 3 1.38448 1.37978 1.37508 1.37540 1.36573 1.36107 1.35643 1.35180 1.34718	4.10232 + 1 4.08838 4.07448 4.06061 4.04679 4.03300 4.01925 4.00553 3.99186 3.97822	1.37104 + 0 1.366173 1.36173 1.35710 1.35248 1.34787 1.34327 1.33869 1.33812 1.32956	9.8739 - 2 9.8467 9.8196 9.7926 9.7655 9.7386 9.7117 9.6849 9.6581	1.2911 + 0 1.2876 1.2840 1.2805 1.2770 1.27734 1.2699 1.2664 1.2629
-8000 -7900 -7800 -7700 -7600 -7500 -7400 -7300 -7200 -7100	-7997 -7897 -7797 -7697 -7597 -7497 -7397 -7297 -7198 -7098	547.199 546.843 546.486 546.129 545.773 545.416 545.060 544.703 544.346 543.990	87.529 87.173 86.816 86.459 86.103 85.746 85.390 85.033 84.676 84.320	30.850 30.651 30.453 30.255 30.057 29.859 29.661 29.463 29.265 29.067	1.34258 + 3 1.33798 1.33340 1.32884 1.32428 1.31974 1.31521 1.31070 1.30619 1.30170	3.96462 + 1 3.95106 3.93754 3.92405 3.91060 3.89719 3.88382 3.87048 3.85718 3.84392	1.32502 + 0 1.32049 1.31597 1.31146 1.30697 1.30248 1.29801 1.29356 1.28911	9.6047 - 2 9.5781 9.5515 9.5250 9.4986 9.4722 9.4459 9.4196 9.3934 9.3672	1.2559 + 0 1.2525 1.2490 1.2455 1.2421 1.2386 1.2352 1.2317 1.2283 1.2249
-7000 -6900 -6800 -6700 -6500 -6400 -6300 -6200 -6100	-6998 -6898 -6798 -6598 -6598 -6398 -6398 -6198 -6098	543.633 543.276 542.920 542.563 542.207 541.850 541.493 541.137 540.780 540.424	83.963 83.606 83.250 82.893 82.537 82.180 81.823 81.467 81.110	28.868 28.670 28.472 28.274 28.076 27.878 27.680 27.482 27.283 27.085	1.29722 + 3 1.29276 1.28380 1.28386 1.27943 1.27501 1.27061 1.26622 1.26184 1.25747	3.83069 + 1 3.81750 3.80435 3.79124 3.77816 3.76512 3.75511 3.73914 3.72621 3.71331	1.28026 + 0 1.27585 1.27145 1.26707 1.26270 1.25834 1.25399 1.24966 1.24534 1.24103	9.3411 - 2 9.3151 9.2891 9.2631 9.2372 9.2114 9.1856 9.1599 9.1342 9.1086	1.2215 + 0 1.2187 1.2147 1.2113 1.2079 1.2045 1.2011 1.1978 1.1944 1.1911
-6000 -5900 -5800 -5700 -5600 -5500 -5400 -5300 -5200 -5100	-5998 -5898 -5798 -5698 -5598 -5499 -5399 -5299 -5199	540.067 539.710 539.354 538.997 538.640 538.284 537.927 537.571 537.214 536.857	80.397 80.040 79.684 79.327 78.970 78.614 78.257 77.901 77.544 77.187	26.887 26.489 26.491 26.293 26.095 25.897 25.698 25.500 25.302 25.104	1.25312 + 3 1.24877 1.24444 1.24012 1.23582 1.23152 1.22724 1.22297 1.21871 1.21447	3.70045 + 1 3.68763 3.67484 3.66208 3.64937 3.63669 3.62404 3.61143 3.59886 3.58632	1.23673 + 0 1.23244 1.22817 1.22391 1.21966 1.21542 1.21119 1.20698 1.20278 1.19859	9.0831 - 2 9.0576 9.0321 9.0068 8.9814 8.9561 8.9561 8.9309 8.9057 8.8806	1.1877 + 0 1.1844 1.1811 1.1778 1.1744 1.1711 1.1678 1.1645 1.1645 1.1613
-5000 -4900 -4800 -4700 -4600 -4500 -4300 -4300 -4100	- 4899 - 4899 - 4799 - 4699 - 4699 - 4399 - 4299 - 4099	536.501 536.144 535.788 535.431 535.074 534.718 534.361 534.004 533.648 533.291	76.831 76.474 76.118 75.761 75.404 75.048 74.691 74.334 73.978	24.906 24.708 24.510 24.312 24.314 23.915 23.717 23.519 23.321 23.123	1.21023 + 3 1.20601 1.20180 1.19760 1.19342 1.18924 1.18508 1.18093 1.17679 1.17266	3.57382 + 1 3.56135 3.54891 3.53652 3.52416 3.51183 3.49953 3.48728 3.47705 3.46287	1.19441 + 0 1.19024 1.18608 1.18194 1.17781 1.177369 1.16958 1.16548 1.16140 1.15733	8.8306 - 2 8.8056 8.7807 8.7859 8.7311 8.7311 8.6816 8.6570 8.6570	1.1547 + 0 1.1514 1.1482 1.1449 1.1417 1.1385 1.1352 1.1320 1.1288 1.1256
-4000 -3900 -3800 -3700 -3600 -3500 -3400 -3300 -3200 -3100	-3999 -3899 -3799 -3699 -3599 -3499 -3399 -3299 -3200 -3100	532.935 532.578 532.221 531.865 531.508 531.152 530.795 530.438 530.082 529.725	73.265 72.908 72.551 72.195 71.838 71.482 71.125 70.768 70.412 70.055	22.925 22.727 22.529 22.330 22.132 21.934 21.736 21.538 21.340 21.142	1.16855 + 3 1.16444 1.16035 1.15627 1.15220 1.14814 1.14410 1.14006 1.134004 1.13203	3.45071 + 1 3.43859 3.42651 3.41446 3.40244 3.39046 3.37852 3.36660 3.35472 3.34288	1.15326 + 0 1.14921 1.14518 1.14115 1.13713 1.13313 1.12914 1.12515 1.12118 1.11723	8.5834 - 2 8.5590 8.5347 8.5103 8.4861 8.4861 8.4377 8.4136 8.3896	1.1224 + 0 1.1192 1.1160 1.1128 1.1097 1.1065 1.1033 1.1002 1.0939
-300C -2900 -2800 -2700 -2600 -2500 -2400 -2300 -2200 -2100	-3000 -2900 -2800 -2700 -2600 -2500 -2400 -2300 -2200	529.368 529.012 528.655 528.299 527.942 527.585 527.229 526.872 526.516 526.159	69.698 69.342 68.985 68.629 68.272 67.915 67.559 67.559 67.202 66.846 66.489	20.944 20.745 20.547 20.547 20.151 19.953 19.755 19.557 19.359 19.161	1.12803 + 3 1.12804 1.12006 1.11610 1.11214 1.10820 1.10427 1.10035 1.09054 1.09254	3.33107 + 1 3.31929 3.30755 3.29584 3.28416 3.27252 3.26091 3.24933 3.23779 3.22628	1.11328 + 0 1.10934 1.10542 1.10150 1.09760 1.09371 1.08983 1.08596 1.08210 1.07826	8.3416 - 2 8.3178 8.2939 8.2701 8.2264 8.2267 8.1991 8.1755 8.1520 8.1285	1.0908 + 0 1.0877 1.0845 1.0814 1.0783 1.0752 1.0721 1.0660 1.0629
-2000 -1900 -1800 -1700 -1600 -1500 -1400 -1300 -1200 -1100	-2000 -1900 -1800 -1700 -1600 -1500 -1400 -1300 -1200 -1100	525.802 525.446 525.089 524.732 524.376 524.019 523.663 523.306 522.949 522.593	66.132 65.776 65.419 65.062 64.706 64.349 63.993 63.636 63.279 62.923	18.962 18.764 18.566 18.368 18.170 17.972 17.774 17.576 17.377	1.08866 + 3 1.08478 1.08092 1.07707 1.07322 1.06939 1.06557 1.06176 1.05797	3.21480 + 1 3.20336 3.19195 3.18057 3.16923 3.15792 3.14664 3.13539 3.12418 3.11300	1.07442 + 0 1.07060 1.06678 1.06278 1.05919 1.05541 1.05164 1.04788 1.04413	8.1051 - 2 8.0817 8.0584 8.0351 8.0119 7.9888 7.9657 7.9426 7.9196	1.0598 + 0 1.0568 1.0537 1.0507 1.0477 1.0446 1.0416 1.0386 1.0356

Altit	ude	T	emperature	2		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _o	ρ , lb ft ⁻³	<u>P</u>
-9000 -8900 -8800 -8700 -8500 -8500 -8400 -8200 -8100	-9004 -8904 -8804 -8704 -8604 -8503 -8403 -8203 -8103	550.779 550.422 550.065 549.709 549.352 548.995 548.638 548.281 547.924 547.567	91.109 90.752 90.395 90.039 89.682 89.325 88.968 88.611 88.254 87.897	32.838 32.640 32.442 32.244 32.045 31.847 31.649 31.451 31.252 31.054	1.38939 + 3 1.38466 1.37995 1.37525 1.37525 1.37056 1.36589 1.36123 1.35658 1.35195 1.34733	4.10286 + 1 4.08891 4.07499 4.06112 4.04728 4.03347 4.01971 4.00599 3.99230 3.97865	1.37122 + 0 1.36656 1.36191 1.35727 1.35264 1.34803 1.34803 1.3483 1.33884 1.33827 1.32971	9.8750 - 2 9.8478 9.8206 9.7935 9.7665 9.7395 9.7126 9.6857 9.6322	1.2913 + 0 1.2877 1.2842 1.2806 1.2771 1.27736 1.2700 1.2665 1.2630 1.2595
-8000 -7900 -7800 -7700 -7600 -7500 -7400 -7300 -7200 -7100	-8003 -7903 -7803 -7703 -7603 -7503 -7403 -7303 -7202 -7102	547.210 546.853 546.496 546.140 545.783 545.426 545.069 544.712 544.355 543.998	87.5%0 87.183 86.826 86.470 86.113 85.756 85.399 85.0%2 84.685 84.328	30.856 30.657 30.459 30.261 30.063 29.864 29.666 29.468 29.270 29.071	1.34272 + 3 1.33812 1.33354 1.32897 1.32441 1.31986 1.31533 1.31081 1.30630 1.30181	3.96504 + 1 3.95147 3.93193 3.92444 3.91098 3.89755 3.88417 3.87082 3.85751 3.84424	1.32516 + 0 1.32062 1.31610 1.31159 1.30709 1.30260 1.29813 1.29367 1.28922 1.28479	9.6055 - 2 9.5789 9.5523 9.55258 9.4993 9.4729 9.4466 9.4203 9.3940 9.3678	1.2560 + 0 1.2526 1.2491 1.2456 1.2422 1.2387 1.2353 1.2318 1.2284
-7000 -6900 -6800 -6700 -6600 -6500 -6400 -6300 -6200 -6100	-7002 -6902 -6802 -6702 -6602 -6502 -6402 -6302 -6202 -6102	543.641 543.285 542.928 542.571 542.214 541.857 541.144 540.787 540.430	83.971 83.615 83.258 82.901 82.544 82.187 81.830 81.474 81.117	28.873 28.675 28.477 28.278 28.080 27.882 27.684 27.485 27.287	1.29733 + 3 1.29286 1.28840 1.28896 1.27952 1.27952 1.27070 1.26630 1.26192 1.25755	3.83100 + 1 3.81781 3.80464 3.77152 3.77643 3.76538 3.75237 3.73939 3.72645 3.71354	1.28036 + 0 1.27595 1.27155 1.26717 1.26279 1.25843 1.25408 1.24974 1.24542 1.24110	9.3417 - 2 9.3156 9.2896 9.2637 9.2378 9.2119 9.1861 9.1604 9.1347 9.1091	1.2216 + 0 1.2181 1.2147 1.2113 1.2080 1.2046 1.2012 1.1978 1.1945
-6000 -5900 -5800 -5700 -5600 -5500 -5400 -5300 -5200 -5100	-6002 -5902 -5802 -5702 -5602 -5501 -5401 -5301 -5201 -5101	540.073 539.716 539.359 539.003 538.646 538.289 537.932 537.575 537.219	80.403 80.046 79.689 79.333 78.976 78.619 78.262 77.905 77.549	26.891 26.692 26.494 26.296 26.098 25.899 25.701 25.503 25.305	1.25319 + 3 1.24851 1.24451 1.24019 1.23588 1.23159 1.22730 1.22303 1.21877 1.21452	3.70067 + 1 3.68784 3.667504 3.66228 3.64956 3.63687 3.62422 3.61160 3.59902 3.58647	1.23680 + 0 1.23251 1.22824 1.22397 1.21972 1.21548 1.21125 1.20704 1.20283 1.19864	9.0835 - 2 9.0580 9.0326 9.0072 8.9818 8.9565 8.9313 8.9061 8.8859	1.1878 + 0 1.1845 1.1811 1.1778 1.1775 1.1712 1.1679 1.1646 1.1613 1.1580
-5000 -4900 -4800 -4700 -4600 -4500 -4500 -4300 -4300 -4100	-5001 -4901 -4801 -4701 -4601 -4501 -4401 -4201 -4201	536.505 536.148 535.791 535.435 535.078 534.721 534.364 534.008 533.651 533.294	76.835 76.478 76.121 75.765 75.408 75.051 74.694 74.338 73.981 73.624	24.908 24.710 24.512 24.314 24.116 23.917 23.719 23.521 23.323 23.323	1.21028 + 3 1.20606 1.20185 1.19765 1.19786 1.18928 1.18512 1.18512 1.18666 1.17682	3.57397 + 1 3.56149 3.54905 3.53665 3.52428 3.51195 3.49965 3.49765 3.47516 3.46296	1.19446 + 0 1.19029 1.18613 1.18199 1.17785 1.17373 1.16962 1.16552 1.16143 1.15736	8.8309 - 2 8.8059 8.7561 8.7561 8.7313 8.7066 8.6819 8.6572 8.6326 8.6381	1.1547 + 0 1.1515 1.1482 1.1450 1.1417 1.1385 1.1353 1.1320 1.1288 1.1256
-4000 -3900 -3800 -3700 -3600 -3500 -3400 -3300 -3200 -3100	-4001 -3901 -3801 -3701 -3601 -3501 -3401 -3200 -3100	532.937 532.581 532.224 531.867 531.510 531.154 530.797 530.440 530.083 529.727	73.267 72.911 72.554 72.197 71.864 71.127 70.770 70.413 70.057	22.926 22.728 22.530 22.332 21.34 21.935 21.737 21.539 21.341 21.143	1.16858 + 3 1.16447 1.16038 1.15630 1.15223 1.14817 1.14412 1.14008 1.13606 1.13205	3.45081 + 1 3.43868 3.42659 3.41454 3.40252 3.39053 3.37858 3.37858 3.35666 3.35478 3.34293	1.15330 + 0 1.14924 1.14520 1.14117 1.13716 1.13315 1.12916 1.12517 1.12120 1.11724	8.5836 - 2 8.5592 8.5348 8.5105 8.4862 8.4620 8.4379 8.4138 8.3897	1.1228 + 0 1.1192 1.1160 1.1129 1.1097 1.1065 1.1034 1.1002 1.0971
-3000 -2900 -2800 -2700 -2600 -2500 -2400 -2300 -2200 -2100	-3000 -2900 -2800 -2700 -2600 -2500 -2400 -2300 -2200 -2100	529.370 529.013 528.657 528.300 527.943 527.586 527.230 526.873 526.516	69.700 69.343 68.987 68.630 68.273 67.916 67.560 67.203 66.846 66.490	20.944 20.746 20.548 20.350 20.152 19.954 19.755 19.359 19.161	1.12805 + 3 1.12406 1.12008 1.11611 1.11216 1.10821 1.10828 1.10036 1.09645 1.09255	3.33112 + 1 3.31934 3.30759 3.29588 3.28420 3.27255 3.26094 3.24936 3.23782 3.22630	1.11329 + 0 1.10936 1.10543 1.10152 1.09761 1.09372 1.08984 1.08597 1.08211	8.3418 - 2 8.3179 8.2940 8.2702 8.2465 8.2228 8.1992 8.1756 8.1521 8.1286	1.0908 + 0 1.0877 1.0845 1.0814 1.0783 1.0752 1.0721 1.0691 1.0600
-2000 -1900 -1800 -1700 -1600 -1500 -1400 -1300 -1200 -1100	-2000 -1900 -1800 -1700 -1600 -1500 -1400 -1300 -1200 -1100	525.803 525.446 525.090 524.376 524.376 524.020 523.306 522.950 522.593	66-133 65-776 65-420 65-063 64-706 64-350 63-993 63-636 63-280 62-923	18.963 18.765 18.566 18.368 18.170 17.972 17.774 17.576 17.378	1.08866 + 3 1.08479 1.08092 1.07707 1.07323 1.06940 1.06558 1.06177 1.05797	3.21482 + 1 3.20338 3.19197 3.18059 3.16924 3.15793 3.14665 3.13540 3.12418 3.11300	1.07443 + 0 1.07060 1.06679 1.06299 1.055919 1.055164 1.04788 1.04414 1.04040	8.1051 - 2 8.0818 8.0585 8.0352 8.0120 7.9888 7.9657 7.9426 7.9196	1.0599 + 0 1.0568 1.0537 1.0507 1.0477 1.0446 1.0416 1.0386 1.0356

TABLE IV.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	T	emperature	e	1	Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P°	ρ, lb ft ⁻³	$\frac{\rho}{\rho_o}$
-1000 -900 -800 -700 -600 -500 -400 -300 -200 -100	-1000 -900 -800 -700 -600 -500 -400 -300 -200 -100	522.236 521.880 521.523 521.166 520.810 520.453 520.096 519.740 519.7383 519.027	62.566 62.210 61.853 61.496 61.140 60.783 60.426 60.070 59.713 59.357	16.981 16.783 16.585 16.387 16.189 15.991 15.792 15.594 15.396 15.198	1.05041 + 3 1.04644 1.04289 1.03914 1.03541 1.03169 1.02798 1.02428 1.02059 1.01692	3.10185 + 1 3.09073 3.07965 3.06859 3.06859 3.04659 3.03563 3.02471 3.01381 3.00295	1.03667 + 0 1.03295 1.02925 1.02556 1.02187 1.01820 1.01454 1.01089 1.00725 1.00362	7.8737 - 2 7.8509 7.8281 7.8053 7.7826 7.7599 7.7373 7.7148 7.6923 7.6698	1.0296 + 0 1.0266 1.0236 1.0276 1.0177 1.01147 1.018 1.0088 1.0059 1.0029
0	0	518.670	59.000	15.000	1.01325 + 3	2.99213 + 1	1-00000 + 0	7.6474 - 2	1.0000 + 0
100 200 300 400 500 600 700 800 900	100 200 300 400 500 600 700 800 900	518.313 517.957 517.600 517.244 516.887 516.530 516.174 515.817 515.460	58.643 58.287 57.930 57.574 57.217 56.860 56.504 56.147 55.790	14.802 14.604 14.406 14.208 14.009 13.811 13.613 13.415 13.217	1.00959 1.00595 1.00231 9.98689 + 2 9.95075 9.91472 9.87880 9.84298 9.80726	2.98133 2.97056 2.95983 2.94913 2.93846 2.92782 2.91721 2.90663 2.89608	9.96391 - 1 9.92793 9.89206 9.85629 9.82063 9.78507 9.74961 9.71426 9.67901	7.6251 7.6028 7.5805 7.5583 7.5362 7.5141 7.4920 7.4700 7.4480	9.9708 - 1 9.9416 9.9125 9.8835 9.8545 9.8256 9.7968 9.7680 9.7393
1000 1100 1200 1300 1400 1500 1600 1700 1800	1000 1100 1200 1300 1400 1500 1600 1700 1800	515.104 514.747 514.391 514.034 513.321 512.964 512.251 511.894	55.434 55.077 54.721 54.364 54.007 53.651 53.294 52.938 52.581	13.019 12.821 12.623 12.424 12.226 12.028 11.830 11.632 11.434	9.77165 + 2 9.73615 9.70075 9.66545 9.63026 9.59517 9.56019 9.52531 9.49053 9.45586	2.88557 + 1 2.87508 2.86463 2.85421 2.85421 2.84382 2.83345 2.82312 2.81282 2.80255 2.79231	9.64387 - 1 9.60883 9.57390 9.53906 9.50433 9.46970 9.43518 9.40518 9.30643 9.33221	7.4261 - 2 7.4043 7.3825 7.3607 7.3390 7.3174 7.2957 7.2742 7.2527 7.2312	9.7106 - 1 9.6821 9.6535 9.6251 9.5967 9.5684 9.5401 9.5119 9.4838 9.4557
2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	511.538 511.181 510.824 510.468 510.111 509.755 509.398 509.041 508.685 508.328	51.868 51.511 51.154 50.798 50.481 50.085 49.728 49.371 49.015	11.038 10.839 10.641 10.443 10.245 10.047 9.849 9.651 9.453 9.255	9.42129 + 2 9.38682 9.35245 9.31818 9.28402 9.24996 9.21600 9.18214 9.14838 9.11472	2.78210 + 1 2.77193 2.76178 2.75166 2.75166 2.74157 2.73151 2.72148 2.771148 2.70152 2.69158	9.29809 - 1 9.26407 9.23015 9.19633 9.16262 9.12900 9.09548 9.06207 9.02875 8.99553	7.2098 - 2 7.1884 7.1671 7.1458 7.1246 7.1034 7.0823 7.0612 7.0402 7.0192	9.4277 - 1 9.3998 9.3719 9.3441 9.3164 9.2887 9.2610 9.2335 9.2060 9.1785
3000 3100 3200 3300 3400 3500 3600 3700 3800	3000 3100 3200 3301 3401 3501 3601 3701 3801	507.972 507.615 507.258 506.902 506.545 506.188 505.832 505.475 505.119	48.302 47.945 47.588 47.232 46.875 46.162 45.805 45.849 45.092	9.056 8.858 8.660 8.462 8.264 8.066 7.868 7.670 7.471	9.08116 + 2 9.04770 9.01435 8.98109 8.94793 8.91487 8.88191 8.884905 8.81628 8.78362	2.68167 + 1 2.67179 2.66194 2.65211 2.64232 2.63256 2.62283 2.61312 2.60345 2.59380	8.96241 - 1 8.92939 8.89647 8.86364 8.83092 8.79829 8.76576 8.73333 8.70100 8.66876	6.9983 - 2 6.9774 6.9556 6.9358 6.9150 6.8943 6.8737 6.8531 6.8325 6.8120	9.1512 - 1 9.1239 9.0966 9.0694 9.0423 9.0152 8.9882 8.9613 8.9344 8.9076
4000 4100 4200 4300 4400 4500 4600 4700 4800	4001 4101 4201 4301 4401 4501 4601 4701 4801 4901	504.405 504.049 503.692 503.335 502.979 502.622 502.266 501.909 501.552 501.196	44.735 44.022 43.666 43.309 42.952 42.596 42.239 41.882 41.526	7.075 6.877 6.679 6.481 6.283 6.085 5.886 5.688 5.490	8.75105 + 2 8.71858 8.68621 8.65393 8.62176 8.58968 8.55769 8.55769 8.49402	2.58418 + 1 2.57460 2.56504 2.55551 2.54600 2.53653 2.52709 2.51767 2.50828 2.49892	8.63661 - 1 8.60457 8.57262 8.54077 8.50901 8.47735 8.44579 8.44579 8.41432 8.38294	6.7916 - 2 6.7712 6.7508 6.7305 6.7102 6.6900 6.6998 6.6497 6.6296 6.6096	8.8809 - 1 8.8542 8.8275 8.8010 8.7745 8.7480 8.7216 8.6953 8.6690 8.6428
5000 5100 5200 5300 5400 5500 5600 5700 5800 5900	5001 5101 5201 5301 5401 5501 5602 5702 5802 5902	500.839 500.483 500.126 499.769 499.413 499.056 498.699 498.343 497.986 497.630	41.169 40.813 40.456 40.099 39.783 39.386 39.029 38.673 38.316 37.960	5.094 4.896 4.698 4.500 4.302 4.103 3.905 3.707 3.509	8.43072 + 2 8.39922 8.36781 8.33650 8.30528 8.27416 8.24313 8.21220 8.18136 8.15061	2.48959 + 1 2.48029 2.47101 2.46177 2.45255 2.4336 2.43420 2.43506 2.41595 2.40687	8.32048 - 1 8.28939 8.225839 8.22748 8.19667 8.16596 8.13534 8.10481 8.07437	6.5896 - 2 6.5696 6.5497 6.5299 6.5101 6.4903 6.4706 6.4509 6.4513 6.4117	8.6167 - 1 8.5906 8.5646 8.5386 8.5127 8.4869 8.4611 8.4354 8.4097 8.3841
6000 6100 6200 6300 6400 6500 6600 6700 6800 6900	6002 6102 6202 6302 6402 6502 6602 6702 6802	497.273 496.916 496.560 496.203 495.847 495.490 495.133 494.777 494.420 494.063	37.603 37.246 36.890 36.533 36.177 35.820 35.463 35.107 34.750 34.393	3.113 2.915 2.717 2.518 2.320 2.122 1.924 1.726 1.528 1.330	8.11996 + 2 8.08940 8.05893 8.02856 7.99828 7.96809 7.93799 7.90799 7.87808 7.84826	2.39782 + 1 2.38880 2.37980 2.37083 2.36189 2.35298 2.34409 2.33523 2.32640 2.31759	8.01377 - 1 7.98361 7.95355 7.92357 7.89369 7.86389 7.83419 7.83458 7.77506 7.74563	6.3922 - 2 6.3727 6.3532 6.3339 6.3145 6.2952 6.2759 6.2567 6.2376 6.2184	8.3586 - 1 8.3331 8.3077 8.2023 8.2570 8.2318 8.2066 8.1815 8.1564 8.1314

Altit	ude	T	emperature	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in. Hg	P°	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
-1000 -900 -800 -700 -600 -500 -400 -300 -200	-1000 -900 -800 -700 -600 -500 -400 -300 -200 -100	522-236 521.880 521.523 521.166 520.816 520.453 520.096 519.740 519.383 519.027	62.566 62.210 61.853 61.496 61.140 60.783 60.426 60.070 59.713 59.357	16.981 16.783 16.585 16.387 16.189 15.791 15.792 15.594 15.396 15.198	1.05041 + 3 1.046489 1.04949 1.03915 1.03541 1.03169 1.02428 1.02428 1.02059 1.01692	3.10185 + 1 3.09073 3.07965 3.06860 3.05758 3.04659 3.03563 3.02471 3.01381 3.00295	1.03667 + 0 1.03296 1.02925 1.02556 1.02187 1.01820 1.01454 1.01089 1.00725 1.00362	7.8737 - 2 7.8509 7.8281 7.8053 7.7826 7.7599 7.7373 7.7148 7.6923 7.6698	1.0296 + 0 1.0236 1.0236 1.0206 1.0177 1.0118 1.0088 1.0059
٥	0	518.670	59.000	15.000	1.01325 + 3	2.99213 + 1	1.00000 + 0	7.6474 - 2	1.0000 + 0
100 200 300 400 500 600 700 800	100 200 300 400 500 600 700 800 900	518.313 517.957 517.600 517.244 516.887 516.530 516.174 515.817 515.461	58.643 58.287 57.930 57.574 57.217 56.860 56.504 56.147	14.802 14.604 14.406 14.208 14.009 13.811 13.613 13.415	1.00959 1.00595 1.00231 9.98689 + 2 9.95075 9.91473 9.87880 9.84299 9.80728	2.98133 2.97056 2.95983 2.94913 2.93846 2.92782 2.91721 2.90663 2.89609	9.96391 - 1 9.92793 9.89206 9.85629 9.82063 9.78507 9.74962 9.71427 9.67903	7.6251 7.6028 7.5805 7.5583 7.5362 7.5141 7.4920 7.4700 7.4481	9.9708 - 1 9.9416 9.9125 9.8835 9.8545 9.8256 9.7968 9.7680 9.7393
1000 1100 1200 1300 1400 1500 1600 1700 1800	1000 1100 1200 1300 1400 1500 1600 1700 1800	515.104 514.747 514.391 514.034 513.678 513.321 512.965 512.251 511.895	55.434 55.077 54.721 54.364 54.008 53.651 53.295 52.938 52.581	13.019 12.821 12.623 12.425 12.227 12.028 11.830 11.632 11.434	9.77167 + 2 9.73617 9.70077 9.66548 9.63030 9.59521 9.56023 9.52536 9.49059 9.45592	2.88557 + 1 2.87509 2.86464 2.85422 2.84383 2.83347 2.82314 2.81284 2.80257 2.79233	9.64389 - 1 9.60885 9.57392 9.53909 9.50436 9.46974 9.43522 9.40080 9.36648 9.33227	7.4262 - 2 7.4043 7.3825 7.3607 7.3390 7.3174 7.2958 7.2742 7.2527 7.2527	9.7107 - 1 9.6821 9.6536 9.6251 9.5967 9.5884 9.5402 9.5120 9.4838 9.4558
2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	511.538 511.182 510.825 510.469 510.112 509.756 509.399 509.043 508.686 508.330	51.868 51.512 51.155 50.799 50.442 50.086 49.729 49.373 49.016 48.660	11.038 10.840 10.642 10.444 10.246 10.048 9.850 9.651 9.453 9.255	9.42135 + 2 9.38689 9.35253 9.31827 9.28411 9.25006 9.21611 9.18226 9.14851 9.11486	2.78212 + 1 2.77195 2.76180 2.75168 2.75168 2.74160 2.73154 2.72152 2.77152 2.70155 2.69162	9.29815 - 1 9.26414 9.23023 9.19642 9.16271 9.12910 9.09559 9.06218 9.02887 8.99566	7.2098 - 2 7.1885 7.1672 7.1459 7.1247 7.1035 7.0824 7.0613 7.0403 7.0193	9.4278 - 1 9.3099 9.3720 9.31442 9.3164 9.2887 9.2611 9.2336 9.1787
3000 3100 3200 3300 3400 3500 3600 3700 3800 3900	3000 3100 3200 3299 3399 3499 3599 3699 3799	507.973 507.617 507.260 506.904 506.547 506.191 505.834 505.478 505.121 504.765	48.303 47.947 47.590 47.234 46.877 46.521 46.164 45.808 45.451 45.095	9.057 8.859 8.661 8.463 8.265 8.067 7.869 7.671 7.473 7.275	9.08131 + 2 9.04786 9.01451 8.98126 8.94811 8.91506 8.88211 8.882216 8.81651 8.78386	2.68171 + 1 2.67183 2.66198 2.65217 2.64238 2.63262 2.62289 2.61319 2.60351 2.59387	8.96255 - 1 8.92954 8.89663 8.86382 8.883110 8.79848 8.76596 8.73354 8.70122 8.66899	6.9984 - 2 6.9775 6.9567 6.9359 6.9151 6.8945 6.8738 6.8532 6.8327 6.8122	9.1513 - 1 9.1240 9.0967 9.0425 9.0154 8.9884 8.9615 8.9346 8.9078
4000 4100 4200 4300 4400 4500 4600 4700 4800	3999 4199 4199 4399 4499 4599 4699 4699 4899	504.408 504.052 503.695 503.339 502.982 502.626 502.269 501.913 501.556 501.200	44.738 44.382 44.025 43.669 43.669 42.956 42.599 42.243 41.886 41.530	7.077 6.879 6.681 6.483 6.285 6.087 5.888 5.690 5.492 5.294	8.75130 + 2 8.71884 8.68648 8.655422 8.66206 8.58999 8.55802 8.52614 8.49437 8.46269	2.58426 + 1 2.57467 2.556512 2.555559 2.54609 2.53662 2.52718 2.51777 2.50839 2.49903	8.63686 - 1 8.60483 8.57289 8.54105 8.50931 8.47766 8.44611 8.41465 8.38329 8.35202	6.7917 - 2 6.7713 6.7510 6.7307 6.7104 6.6902 6.6700 6.6499 6.6298 6.6098	8.8811 - 1 8.8544 8.8578 8.8012 6.7747 8.7848 8.7219 8.6956 8.6693 8.6431
5000 5100 5200 5300 5400 5500 5600 5700 5800 5900	4999 5099 5199 5299 5399 5499 5598 5798 5798	500.843 500.487 500.131 499.774 499.061 498.705 498.348 497.992 497.636	41.173 40.817 40.461 40.104 39.748 39.391 39.035 38.678 38.322 37.966	5.096 4.898 4.700 4.502 4.304 4.106 3.908 3.710 3.512 3.314	8.43110 + 2 8.39961 8.36822 8.33692 8.30572 8.27461 8.24360 8.21268 8.18185 8.15112	2.48970 + 1 2.48040 2.47113 2.46189 2.45268 2.44349 2.43433 2.42520 2.41610 2.40702	8.32085 - 1 8.28977 8.25879 8.22790 8.19711 8.16640 8.13580 8.10528 8.07486 8.04453	6.5898 ~ 2 6.5699 6.5500 6.5301 6.5103 6.4906 6.4709 6.4512 6.4316 6.4120	8.6170 - 1 8.5909 8.5649 8.5390 8.5131 8.4873 8.4615 8.4358 8.4102 8.3846
6000 6100 6200 6300 6400 6500 6600 6700 6800	5998 6098 6198 6298 6398 6398 6598 6698 6798 6898	497.279 496.923 496.566 496.210 495.854 495.497 495.141 494.784 494.428	37.609 37.253 36.896 36.540 36.184 35.827 35.471 35.114 34.758 34.402	3.116 2.918 2.720 2.522 2.324 2.126 1.928 1.730 1.532 1.334	8.12048 + 2 8.08994 8.05949 8.02914 7.99887 7.96870 7.93862 7.90864 7.87874 7.84894	2.39798 + 1 2.38896 2.37997 2.37100 2.36207 2.35316 2.34427 2.33542 2.32659 2.31779	8.01430 - 1 7.98415 7.95410 7.95414 7.89427 7.86450 7.83481 7.80522 7.77571 7.74630	6.3925 - 2 6.3730 6.3536 6.35342 6.3149 6.2956 6.2763 6.2771 6.2380 6.2189	8.3390 - 1 8.3336 8.3082 8.2828 8.2575 8.2323 8.2071 8.1820 8.1570 8.1320

TABLE I▼.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	T	emperatur	е		Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	<u>P</u> P°	ρ , lb ft ⁻³	<u>ρ</u> Ρ ₀
700C 7100 7200 730C 7400 7500 7600 7700 7800 7900	7002 7102 7202 7303 7403 7503 7603 7703 7803 7903	493.707 493.350 492.994 492.637 492.280 491.924 491.567 491.211 490.854 490.497	34.037 33.680 33.324 32.967 32.610 32.254 31.897 31.541 31.184 30.827	1.132 0.933 0.735 0.537 0.339 0.141 -0.057 -0.255 -0.453 -0.651	7.81853 + 2 7.78889 7.75935 7.75935 7.72989 7.70053 7.67125 7.64207 7.61298 7.58397 7.55506	2.30881 + 1 2.30006 2.29133 2.28264 2.27397 2.26532 2.25670 2.24811 2.23955 2.23101	7.71629 - 1 7.68708 7.65788 7.62881 7.59983 7.57094 7.57094 7.51342 7.48480 7.45626	6.1993 - 2 6.1803 6.1613 6.1424 6.1235 6.1046 6.0858 6.0670 6.0483 6.0296	8.1064 - 1 8.0816 8.0567 8.0320 8.0072 7.9826 7.9580 7.9334 7.9090 7.8845
8000 8100 8200 8300 8400 8500 8600 8700 8800 8900	8003 8103 8203 8303 8403 8503 8604 8704 8804	490.141 489.784 489.427 489.071 488.714 488.358 488.001 487.644 487.288 486.931	30.471 30.114 29.757 29.401 29.044 28.688 28.331 27.974 27.618	-0.850 -1.048 -1.246 -1.444 -1.642 -1.840 -2.038 -2.236 -2.435	7.52623 + 2 7.49750 7.46885 7.44029 7.41182 7.38344 7.35514 7.32694 7.29882 7.27079	2.22250 + 1 2.21401 2.20555 2.19712 2.18871 2.18033 2.17197 2.16364 2.15534 2.14706	7.42781 - 1 7.39945 7.37118 7.34300 7.31490 7.28689 7.25896 7.23113 7.20338 7.17571	6.0110 - 2 5.9924 5.9739 5.9554 5.9369 5.9185 5.9001 5.8818 5.8635 5.8453	7.8602 - 1 7.8359 7.8116 7.7874 7.7633 7.7392 7.7152 7.6912 7.6673 7.6434
9000 9100 9200 9300 9400 9500 9600 9700 9800	9004 9104 9204 9304 9404 9504 9604 9705 9805	486.575 486.218 485.861 485.505 485.148 484.791 484.435 484.078 483.722 483.365	26.905 26.548 26.191 25.835 25.478 25.121 24.765 24.408 24.052 23.695	-2.831 -3.029 -3.227 -3.623 -3.623 -4.020 -4.218 -4.416 -4.614	7.24285 + 2 7.21499 7.18722 7.15954 7.13194 7.10443 7.07700 7.04966 7.02241 6.99524	2.13881 + 1 2.13059 2.12238 2.11421 2.10606 2.09794 2.08984 2.08177 2.07372 2.06569	7.14813 - 1 7.12064 7.09323 7.06591 7.03868 7.01152 6.98446 6.95748 6.93058 6.90377	5.8271 - 2 5.8089 5.7908 5.7727 5.7547 5.7367 5.7188 5.7009 5.6830 5.6652	7.6196 - 1 7.5959 7.5722 7.5486 7.5250 7.5015 7.4781 7.4547 7.4313 7.4080
10000 10100 10200 10300 10400 10500 10600 10700 10800	10005 10105 10205 10305 10405 10505 10605 10705 10806 10906	483.008 482.652 482.295 481.939 481.582 481.225 480.869 480.512 480.155	23.338 22.982 22.625 22.269 21.912 21.555 21.199 20.485 20.129	-4.812 -5.010 -5.208 -5.406 -5.604 -5.803 -6.001 -6.199 -6.397 -6.595	6.96816 + 2 6.94116 6.91425 6.88742 6.86068 6.83402 6.80744 6.78095 6.75454 6.72822	2.05770 + 1 2.04972 2.04178 2.03385 2.02596 2.01808 2.01024 2.00241 1.99461 1.98684	6.87704 - 1 6.85040 6.82383 6.79736 6.71906 6.74465 6.71842 6.669228 6.66621 6.64023	5.6475 - 2 5.6297 5.6121 5.5944 5.5768 5.5593 5.5418 5.5243 5.5069 5.4895	7.3848 - 1 7.3616 7.3385 7.3154 7.2924 7.2695 7.2466 7.2237 7.2009 7.1782
11000 11100 11200 11300 11400 11500 11600 11700 11800 11900	11006 11106 11206 11306 11406 11506 11606 11707 11807	479.442 479.086 478.729 478.372 478.016 477.659 477.303 476.589 476.589 476.233	19.772 19.416 19.059 18.702 18.346 17.989 17.633 17.276 16.919	-6.793 -6.991 -7.189 -7.388 -7.586 -7.784 -7.982 -8.180 -8.378 -8.576	6.70197 + 2 6.67581 6.64974 6.62374 6.59783 6.57200 6.54625 6.52059 6.49500 6.46950	1.97909 + 1 1.97137 1.96367 1.95599 1.94834 1.94071 1.93311 1.92553 1.91797	6.61433 - 1 6.58852 6.56278 6.53713 6.51155 6.48606 6.46065 6.43532 6.41007 6.38490	5.4721 - 2 5.4548 5.4376 5.4203 5.4032 5.3860 5.3689 5.3519 5.33149 5.33179	7.1555 - 1 7.1329 7.1103 7.0878 7.0653 7.0429 7.0206 6.9983 6.9761 6.9539
12000 12100 12200 12300 12400 12500 12600 12700 12800 12900	12007 12107 12207 12307 12407 12507 12608 12708 12808 12908	475.876 475.519 475.163 474.850 474.850 473.736 473.380 473.023 472.667	16.206 15.849 15.493 15.136 14.780 14.423 14.066 13.710 13.353 12.997	-8.774 -8.973 -9.171 -9.369 -9.567 -9.765 -9.963 -10.359 -10.557	6.44408 + 2 6.41874 6.39348 6.36830 6.34320 6.31818 6.29324 6.26838 6.24360 6.21890	1.90294 + 1 1.89545 1.88799 1.88056 1.87315 1.86576 1.85839 1.85105 1.84374 1.83644	6.35981 - 1 6.33480 6.30987 6.28502 6.26025 6.23556 6.21095 6.18641 6.16196 6.13758	5.3010 - 2 5.2841 5.2673 5.2505 5.2337 5.2170 5.2003 5.1837 5.1671 5.1505	6.9317 - 1 6.9097 6.8876 6.8657 6.8437 6.8219 6.8001 6.7783 6.7784
13000 13100 13200 13300 13400 13500 13600 13700 13800 13900	13008 13108 13208 13308 13409 13509 13609 13709 13809	472.310 471.953 471.597 471.240 470.883 470.527 470.170 469.814 469.457	12.640 12.283 11.927 11.570 11.213 10.857 10.500 10.144 9.787 9.430	-10.756 -10.954 -11.152 -11.350 -11.548 -11.746 -11.944 -12.142 -12.341 -12.539	6.19428 + 2 6.16974 6.14528 6.12089 6.09659 6.07236 6.04821 6.02413 6.00014 5.97622	1.82917 + 1 1.82192 1.81470 1.80750 1.80032 1.79317 1.78603 1.77893 1.77184	6.11328 - 1 6.08906 6.06492 6.04085 6.01686 5.99295 5.96912 5.94536 5.92168 5.89807	5.1340 - 2 5.1175 5.1011 5.0847 5.0683 5.0520 5.0357 5.0195 5.0033 4.9871	6.7133 - 1 6.6918 6.6703 6.6489 6.6275 6.6061 6.5849 6.5636 6.5424 6.5213
14000 14100 14200 14300 14400 14500 14600 14700 14800 14900	14009 14110 14210 14310 14410 14610 14610 14811 14911	468.744 468.387 468.031 467.674 467.317 466.961 466.604 466.247 465.891 465.534	9.074 8.717 8.361 8.004 7.647 7.291 6.934 6.577 6.221 5.864	-12.737 -12.935 -13.133 -13.331 -13.529 -13.727 -13.926 -14.124 -14.322	5.95238 + 2 5.92862 5.90493 5.88133 5.85779 5.83434 5.81096 5.78765 5.76442 5.74127	1.75774 + 1 1.75072 1.74373 1.73675 1.72981 1.72288 1.71597 1.70909 1.70223 1.69540	5.87455 - 1 5.85109 5.82772 5.80442 5.78119 5.75804 5.73497 5.71197 5.68904 5.66619	4.9710 - 2 4.9549 4.9389 4.9229 4.9070 4.8910 4.8752 4.8593 4.8593 4.8435	6.5003 - 1 6.4792 6.4583 6.4573 6.4165 6.3957 6.3749 6.3542 6.3335 6.3129

Altit	ude	Т	emperatur	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _o	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
7000 7100 7200 7300 7400 7500 7600 7700 7800 7800	6998 7098 7198 7297 7397 7497 7597 7697 7797 7897	493.715 493.359 493.002 492.646 492.290 491.577 491.221 490.864 490.508	34.045 33.689 33.332 32.976 32.620 32.263 31.907 31.551 31.194 30.838	1.136 0.938 0.740 0.542 0.344 0.146 -0.052 -0.250 -0.448 -0.646	7.81923 + 2 7.78961 7.76968 7.73064 7.70130 7.67204 7.64288 7.61380 7.58482 7.55592	2.30902 + 1 2.30027 2.29155 2.28286 2.27419 2.26555 2.25694 2.24835 2.23980 2.23126	7.71698 - 1 7.68775 7.65860 7.62955 7.60059 7.57172 7.54293 7.51424 7.48563 7.45711	6.1998 - 2 6.1808 6.1618 6.1429 6.1240 6.1051 6.0863 6.0676 6.0489 6.0302	8.1070 - 1 8.0822 8.0573 8.0326 8.0079 7.9832 7.9587 7.9341 7.9097 7.8853
8000 8100 8200 8300 8400 8500 8600 8700 8800	7997 8097 8197 8297 8397 8497 8596 8696 8796	490.152 489.795 489.439 489.083 488.726 488.370 488.014 487.657 487.301 486.945	30.482 30.125 29.769 29.413 29.056 28.700 28.344 27.987 27.631 27.275	-0.844 -1.041 -1.239 -1.437 -1.635 -1.833 -2.031 -2.229 -2.427 -2.625	7.52711 + 2 7.49840 7.46977 7.44123 7.41278 7.38442 7.35615 7.32796 7.29986 7.27185	2.2276 + 1 2.21428 2.20582 2.19739 2.18899 2.18062 2.17227 2.16395 2.15565 2.14738	7.42868 - 1 7.40034 7.37209 7.34392 7.31585 7.28786 7.25995 7.23213 7.20440 7.17676	6.0116 - 2 5.9930 5.9745 5.9560 5.9375 5.9191 5.9008 5.8824 5.8642 5.8460	7.8609 - 1 7.8366 7.8124 7.7882 7.7841 7.7400 7.7160 7.6921 7.6682 7.6443
9000 9100 9200 9300 9400 9500 9600 9700 9800 9900	8996 9096 9196 9296 9396 9496 9596 9695 9795	486.588 486.232 485.876 485.519 485.5163 484.807 484.451 484.451 484.93 483.738 483.738	26.918 26.562 26.206 25.849 25.493 25.137 24.781 24.424 24.068 23.712	-2.823 -3.021 -3.219 -3.417 -3.615 -3.813 -4.011 -4.209 -4.407 -4.605	7.24393 + 2 7.21609 7.18834 7.16068 7.13311 7.10562 7.07821 7.05090 7.02366 6.99652	2.13913 + 1 2.13091 2.12272 2.11455 2.10641 2.09829 2.09020 2.08213 2.07409 2.06607	7.14920 - 1 7.12173 7.09434 7.09434 7.06704 7.03983 7.01270 6.98565 6.95869 6.93182 6.90503	5.8278 - 2 5.8096 5.7915 5.7735 5.7555 5.7375 5.7196 5.7017 5.6839 5.6661	7.6206 - 1 7.5968 7.5732 7.5496 7.5260 7.5265 7.4791 7.4557 7.4324 7.4091
10000 10100 10200 10300 10400 10500 10600 10700 10800 10900	9995 10095 10195 10295 10395 10495 10595 10695 10794 10894	483.025 482.669 482.313 481.957 481.600 481.244 480.888 480.532 480.175 479.819	23.355 22.999 22.643 22.287 21.930 21.574 21.218 20.862 20.505 20.149	-4.803 -5.000 -5.198 -5.394 -5.792 -5.792 -6.188 -6.584	6.96946 + 2 6.94248 6.91559 6.88878 6.86206 6.83542 6.80887 6.75240 6.75602 6.72971	2.05808 + 1 2.05011 2.04217 2.03426 2.02637 2.01850 2.01066 2.0284 1.99505 1.98728	6.87832 - 1 6.85170 6.85176 6.79870 6.77233 6.74604 6.71983 6.69371 6.669371 6.664171	5.6483 - 2 5.6306 5.6129 5.5953 5.5777 5.5602 5.5427 5.5252 5.5078 5.4905	7.3859 - 1 7.3627 7.3396 7.3166 7.2936 7.2707 7.2478 7.2250 7.2022 7.1795
11000 11100 11200 11300 11400 11500 11600 11700 11800 11900	10994 11094 11194 11294 11394 11494 11594 11693 11793 11893	479.463 479.107 478.750 478.394 478.038 477.682 477.326 476.969 476.613 476.257	19.793 19.437 19.080 18.724 18.368 18.012 17.656 17.299 16.943	-6.782 -6.980 -7.178 -7.375 -7.573 -7.771 -7.969 -8.167 -8.365	6.70349 + 2 6.67736 6.65130 6.62533 6.59944 6.57364 6.54791 6.52227 6.49671 6.47123	1.97954 + 1 1.97182 1.96413 1.95646 1.94881 1.94119 1.93360 1.92603 1.91848 1.91095	6.61583 - 1 6.59004 6.56432 6.53869 6.51314 6.48767 6.46229 6.43698 6.41175 6.38661	5.4731 - 2 5.4558 5.4386 5.4214 5.4042 5.3871 5.3700 5.3530 5.3360 5.3191	7.1568 - 1 7.1342 7.1117 7.0892 7.0667 7.0444 7.0220 6.9998 6.9775
12000 12100 12200 12300 12400 12500 12600 12700 12800 12900	11993 12093 12193 12293 12393 12493 12592 12692 12692 12792 12892	475.901 475.544 475.188 474.832 474.476 474.120 473.764 473.407 473.407 473.407	16.231 15.874 15.518 15.162 14.806 14.450 14.094 13.737 13.381 13.025	-8.761 -8.959 -9.157 -9.354 -9.552 -9.750 -9.948 -10.146 -10.542	6.44583 + 2 6.42051 6.37528 6.37512 6.34505 6.32005 6.29514 6.27030 6.24555 6.22087	1.90345 + 1 1.89598 1.88852 1.88110 1.87369 1.86631 1.85895 1.85162 1.84431 1.83702	6.36154 - T 6.33656 6.31165 6.28682 6.26207 6.23741 6.21282 6.18831 6.16387 6.13952	5.3022 - 2 : 5.2853 5.2685 5.2517 5.2349 5.2182 5.2016 5.1849 5.1684 5.1518	6.9333 - 1 6.9112 6.8892 6.8672 6.8453 6.8235 6.8017 6.7800 6.7583 6.7367
13000 13100 13200 13300 13400 13500 13600 13700 13800	12992 13092 13192 13292 13391 13491 13591 13691 13791 13891	472.339 471.626 471.270 470.914 470.558 470.202 469.846 469.490	12.669 12.313 11.956 11.600 11.244 10.888 10.532 10.176 9.820 9.463	-10.740 -10.937 -11.135 -11.333 -11.531 -11.729 -11.927 -12.125 -12.322 -12.520	6.19627 + 2 6.17176 6.14732 6.12296 6.09867 6.07447 6.05034 6.02630 6.00233 5.97843	1.82976 + 1 1.82252 1.81530 1.80811 1.80094 1.79379 1.78667 1.77956 1.77249 1.76543	6.11525 - 1 6.09105 6.06693 6.04289 6.01892 5.99504 5.97123 5.94749 5.92384 5.90026	5.1353 - 2 5.1189 5.1024 5.0861 5.0861 5.0537 5.0534 5.0372 5.0209 5.0048 4.9886	6.7151 - 1 6.6936 6.6721 6.6507 6.6293 6.6080 6.5867 6.5655 6.55444 6.5233
14000 14100 14200 14300 14500 14500 14700 14800 14900	13991 14090 14190 14290 14390 14490 14590 14690 14790 14889	468.777 468.421 468.065 467.709 467.353 466.997 466.640 466.284 465.928	9.107 8.751 8.395 8.039 7.683 7.327 6.970 6.614 6.258 5.902	-12.718 -12.916 -13.114 -13.312 -13.510 -13.707 -13.905 -14.103 -14.301	5.95462 + 2 5.93088 5.90722 5.88363 5.86013 5.83670 5.81334 5.79006 5.76686 5.74373	1.75840 + 1 1.75139 1.74440 1.73744 1.73049 1.72358 1.71668 1.70980 1.70295 1.69612	5.87675 - 1 5.85332 5.82997 5.80670 5.78350 5.76353 5.73732 5.71435 5.69145 5.66862	4.9725 - 2 4.9565 4.9265 4.9285 4.9085 4.8768 4.8610 4.8610 4.8452	6.5022 - 1 6.4812 6.4603 6.4394 6.4186 6.3978 6.3770 6.3563 6.3357 6.3151
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TABLE IX.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	т	emperatur	e		Pressure	:	Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P°	ρ, lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
15000 15100 15200 15300 15400 15500 15600 15700 15800 15900	15011 15111 15211 15311 15411 15512 15612 15712 15812 15912	465.178 464.821 464.108 464.108 463.751 463.395 463.038 462.681 462.681 462.681	5.508 5.151 4.794 4.438 4.081 3.725 3.368 3.011 2.655 2.298	-14.718 -14.916 -15.114 -15.312 -15.510 -15.709 -15.907 -16.105 -16.303 -16.501	5.71819 + 2 5.69519 5.67226 5.64941 5.62663 5.60393 5.58130 5.55874 5.53626 5.51385	1.68858 + 1 1.68179 1.67502 1.66827 1.66154 1.65481 1.654150 1.64150 1.63486 1.62824	5.64342 - 1 5.62071 5.59809 5.57553 5.55305 5.53064 5.50831 5.48605 5.46386 5.44375	4.8120 - 2 4.7964 4.7807 4.7651 4.7496 4.7340 4.7185 4.7031 4.6877 4.6877	6.2924 - 1 6.2719 6.2514 6.2310 6.2107 6.1904 6.1701 6.1499 6.1298 6.1097
16000 16100 16200 16300 16400 16500 16600 16700 16800 16900	16012 16112 16213 16313 16413 16513 16613 16613 16614 16914	461.611 461.255 460.898 460.542 460.185 459.828 459.472 459.115 459.115 459.472	1.941 1.585 1.228 0.872 0.515 0.158 -0.198 -0.555 -0.911	-16.699 -16.897 -17.095 -17.294 -17.492 -17.690 -17.888 -18.086 -18.284 -18.482	5.49152 + 2 5.46925 5.44707 5.42495 5.40291 5.38094 5.35904 5.33722 5.31546 5.29378	1.62164 + 1 1.61507 1.60852 1.600199 1.57548 1.58899 1.58252 1.57608 1.56325	5.41971 ~ 1 5.39773 5.37584 5.375401 5.33226 5.31057 5.28896 5.26742 5.24596 5.22456	4.6570 - 2 4.6417 4.6264 4.6112 4.5961 4.5809 4.5658 4.5508 4.55357 4.5207	6.0896 - 1 6.0696 6.0497 6.0298 6.0099 5.9901 5.9704 5.9507 5.9311 5.9115
17000 17100 17200 17300 17400 17500 17600 17700 177800 17900	17014 17114 17214 17314 17415 17515 17615 17715 17815	458.045 457.689 457.332 456.975 456.9619 456.262 455.906 455.549 455.192 454.836	-1.625 -1.981 -2.338 -2.695 -3.051 -3.408 -3.764 -4.121 -4.478 -4.834	-18.680 -18.879 -19.077 -19.275 -19.473 -19.671 -19.869 -20.067 -20.265 -20.463	5.27217 + 2 5.25064 5.22917 5.20777 5.18645 5.16519 5.14401 5.12290 5.10185 5.08088	1.55687 + 1 1.55051 1.534417 1.53785 1.53156 1.52528 1.51903 1.51279 1.50058	5.20323 - 1 5.18197 5.16079 5.13967 5.11863 5.09765 5.07674 5.03591 5.03514	4.5058 - 2 4.4760 4.4612 4.4664 4.4316 4.4169 4.422 4.3876 4.3729	5.8919 - 1 5.8724 5.8530 5.8336 5.8142 5.7949 5.7757 5.7365 5.7373 5.7182
18000 18100 18200 18300 18400 18500 18600 18700 18800 18900	18016 18116 18216 18316 18416 18516 18617 18717 18817	454.479 454.122 453.766 453.409 453.696 452.339 451.983 451.626 451.270	-5.191 -5.547 -5.904 -6.261 -6.617 -6.974 -7.331 -7.687 -8.044 -8.400	-20.662 -20.860 -21.058 -21.256 -21.454 -21.652 -21.850 -22.048 -22.247	5.05998 + 2 5.03915 5.01838 4.99769 4.97706 4.95651 4.93602 4.91560 4.89525 4.87497	.49421 + .48806 .48193 .47582 .46973 .46973 .46366 .45761 .45158 .44557	4.99381 - 1 4.97325 4.95276 4.93233 4.91198 4.89169 4.87147 4.85132 4.83124	4.3584 - 2 4.3438 4.3293 4.3149 4.3005 4.2861 4.2717 4.2574 4.2431	5.6991 - 1 5.6801 5.6612 5.6423 5.6234 5.6086 5.5858 5.5671 5.5884 5.5298
19000 19100 19200 19300 19400 19500 19600 19700 19800 19900	19017 19118 19218 19318 19418 19518 19618 19719 19819	450.913 450.556 450.200 449.843 449.486 449.130 448.773 448.417 448.060	-8.757 -9.114 -9.870 -9.827 -10.184 -10.580 -10.897 -11.253 -11.610 -11.967	-22.643 -22.841 -23.039 -23.237 -23.435 -23.633 -23.633 -24.030 -24.228 -24.228	4.85475 + 2 4.83461 4.81453 4.77458 4.77458 4.75470 4.73489 4.71515 4.69547	1.43361 + 1 1.42766 1.42173 1.41582 1.40903 1.40406 1.39821 1.39238 1.38657 1.38078	4.79127 - 1 4.77139 4.75157 4.73182 4.71214 4.69252 4.67297 4.65349 4.63407 4.61472	4.2147 - 2 4.2005 4.1864 4.1723 4.1582 4.1302 4.1163 4.1024 4.0885	5.5112 - 1 5.4927 5.4772 5.4558 5.4574 5.491 5.4008 5.3626 5.3644 5.3462
20000 20100 20200 20300 20400 20500 20600 20700 20800 20900	20019 20119 20220 20320 20420 20520 20620 20721 20821 20921	447.347 446.990 446.634 446.277 445.920 445.564 445.207 444.850 444.874	-12.323 -12.680 -13.036 -13.750 -14.106 -14.463 -14.820 -15.176 -15.533	-24.624 -24.822 -25.020 -25.218 -25.416 -25.615 -25.615 -26.011 -26.209 -26.407	4.65632 + 2 4.63685 4.61743 4.59809 4.57881 4.55960 4.55960 4.55035 4.50235 4.48340	1.37501 + 1 1.36926 1.36535 1.35762 1.35762 1.35212 1.34079 1.33516 1.32954 1.32395	4.59543 - 1 4.57621 4.55705 4.53796 4.51894 4.49997 4.48108 4.46224 4.46224 4.46224	4.0746 - 2 4.0608 4.0471 4.0333 4.0196 4.0060 3.9923 3.9787 3.9652 3.95517	5.3281 - 1 5.3101 5.2921 5.2741 5.2562 5.2383 5.2205 5.2027 5.1850 5.1673
21000 21100 21200 21300 21500 21500 21600 21700 21800 21900	21021 21121 21222 21322 21422 21522 21622 21723 21823 21923	443.781 443.424 443.067 442.354 441.998 441.641 441.284 440.928	-15.889 -16.246 -16.603 -16.959 -17.316 -17.672 -18.029 -18.742 -19.099	-26.605 -26.803 -27.001 -27.200 -27.398 -27.596 -27.794 -27.992 -28.190 -28.388	4.46451 + 2 4.44568 4.42692 4.40823 4.38960 4.37103 4.35253 4.335253 4.335253 4.335253	1.31837 + 1 1.31281 1.30727 1.30727 1.29425 1.29925 1.298530 1.27985 1.27985 1.27443 1.26902	4.40613 - 1 4.38755 4.36904 4.35058 6.33220 4.31387 4.29561 4.27741 4.25227 4.24120	3.9382 - 2 3.9247 3.9113 3.8979 3.8846 3.8713 3.8580 3.8448 3.8316 3.8316	5.1497 - 1 5.1321 5.1145 5.0770 5.0796 5.0622 5.0448 5.0275 5.0102
22000 22100 22200 22300 22400 22500 22600 22700 22800 22900	22023 22123 22224 22324 22424 22524 22524 22625 22725 22825 22925	440.214 439.858 439.501 439.145 438.788 438.431 438.075 437.718 437.362	-19.456 -19.812 -20.169 -20.525 -20.882 -21.239 -21.955 -21.952 -22.308 -22.665	-28.586 -28.785 -28.983 -29.181 -29.379 -29.577 -29.775 -29.973 -30.171 -30.369	4.27914 + 2 4.26096 4.24283 4.22477 4.20677 4.18883 4.17095 4.15314 4.13538 4.11769	1.26363 + 1 1.25826 1.25291 1.24757 1.24226 1.23696 1.23168 1.22642 1.22118 1.21595	4.22319 - 1 4.20524 4.18735 4.16952 4.15176 4.13405 4.11641 4.09883 4.08131 4.06384	3.8052 - 2 3.7791 3.7791 3.7660 3.7530 3.7401 3.7271 3.7143 3.7014 3.6886	4.9758 - 1 4.9587 4.9416 4.9246 4.9076 4.8906 4.8737 4.8569 4.8400 4.8233

Altit	ude	т	emperature	9		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	<u>P</u>	ρ , lb ft ⁻³	<u>ρ</u> ρ _ο
15000 15100 15200 15300 15400 15500 15600 15700 15800 15900	14989 15089 15189 15289 15389 15488 15588 15688 15788	465.216 464.860 464.504 464.148 463.792 463.079 462.723 462.723 462.011	5.546 5.190 4.834 4.478 4.122 3.766 3.409 3.053 2.697 2.341	-14.697 -14.894 -15.092 -15.290 -15.488 -15.686 -15.884 -16.081 -16.0279 -16.477	5.72068 + 2 5.69770 5.67480 5.65197 5.62921 5.60654 5.58393 5.56140 5.53894 5.51656	1.68931 + 1 1.68253 1.67577 1.66903 1.66231 1.65561 1.64228 1.64228 1.63565 1.62904	5.64587 - 1 5.62319 5.60059 5.57806 5.55560 5.53322 5.51091 5.48668 5.46651 5.44442	4.8137 - 2 4.7981 4.7825 4.7669 4.7513 4.7358 4.7204 4.7049 4.6895	6.2946 - 1 6.2741 6.2537 6.2333 6.2130 6.1927 6.1725 6.1523 6.1523 6.1322 6.1121
16000 16100 16200 16300 16400 16500 16600 16700 16800	1598B 1608B 16187 16287 16387 16487 16587 16687 16786	461.655 461.299 460.943 460.587 460.231 459.875 459.519 459.163 458.807 458.451	1.985 1.629 1.273 0.917 0.561 0.205 -0.151 -0.507 -0.863 -1.219	-16.675 -16.873 -17.071 -17.268 -17.466 -17.664 -17.664 -17.862 -18.060 -18.257	5.49425 + 2 5.47202 5.44985 5.40575 5.40575 5.38380 5.36193 5.34013 5.31840 5.29675	1.62245 + 1 1.61589 1.60934 1.60282 1.59632 1.58388 1.57694 1.57052	5.42241 - 1 5.40046 5.37859 5.35679 5.35506 5.31340 5.29181 5.27030 5.24885 5.22748	4.6589 - 2 4.6436 4.6284 4.6132 4.5980 4.5829 4.5528 4.5378 4.5328	6.0921 - 1 6.0721 6.0522 6.0323 6.0125 5.9927 5.9730 5.9533 5.9337 5.9141
17000 17100 17200 17300 17400 17500 17600 17700 17800 17900	16986 17086 17186 17286 17385 17485 17585 17685 17785 17885	458.095 457.739 457.383 457.027 456.671 456.315 455.959 455.602 455.246 454.890	-1.575 -1.931 -2.287 -2.643 -2.999 -3.355 -3.711 -4.068 -4.424 -4.780	-18.653 -18.851 -19.049 -19.246 -19.444 -19.642 -19.840 -20.038 -20.235 -20.433	5.27516 + 2 5.25365 5.23221 5.21084 5.16831 5.14715 5.12606 5.10505 5.08410	1.55775 + 1 1.55140 1.54507 1.53876 1.53247 1.52620 1.51995 1.51373 1.50752 1.50133	5.20618 - 1 5.18495 5.16379 5.14270 5.12168 5.10072 5.07984 5.05903 5.03829 5.01761	4.5079 - 2 4.4781 4.4633 4.4435 4.4338 4.4191 4.4044 4.3898 4.3752	5.8946 - 1 5.8751 5.8557 5.8363 5.8170 5.7977 5.7785 5.7593 5.7593 5.7402 5.7211
18000 18100 18200 18300 18400 18500 18600 18700 18800 18900	17984 18084 18184 18284 18384 18484 18583 18683 18783	454.534 454.178 453.822 453.466 453.110 452.755 452.399 452.043 451.687 451.331	-5.136 -5.492 -5.848 -6.204 -6.559 -6.915 -7.271 -7.627 -7.983 -8.339	-20.631 -20.829 -21.026 -21.224 -21.422 -21.620 -21.817 -22.015 -22.213 -22.411	5.06322 + 2 5.04241 5.02167 5.00100 4.98040 4.95987 4.93941 4.91902 4.89869 4.87843	1.49517 + 1 1.48902 1.48290 1.47680 1.47680 1.456465 1.45861 1.45258 1.45658 1.44060	4.99701 - 1 4.97647 4.95601 4.93561 4.91528 4.89501 4.87482 4.87482 4.85469 4.83463 4.81464	4.3606 - 2 4.3461 4.3316 4.3172 4.3028 4.2884 4.2741 4.2598 4.2455 4.2313	5.7021 - 1 5.6831 5.6642 5.6453 5.6265 5.6077 5.5889 5.5702 5.5516 5.5330
19000 19100 19200 19300 19400 19500 19600 19700 19800 19900	18983 19083 19182 19282 19382 19482 19582 19681 19781	450.975 450.619 450.263 449.905 449.551 449.195 448.839 448.127 447.771	-8.695 -9.051 -9.407 -9.763 -10.119 -10.475 -10.831 -11.187 -11.543 -11.899	-22.609 -22.806 -23.004 -23.202 -23.400 -23.597 -23.795 -23.993 -24.191 -24.388	4.85825 + 2 4.83812 4.81807 4.77809 4.77817 4.75832 4.73853 4.71881 4.66916 4.67958	1.43464 + 1 1.42870 1.42278 1.41687 1.41087 1.40513 1.39929 1.39347 1.38766 1.38188	4.79472 - 1 4.77486 4.75507 4.73534 4.71568 4.69609 4.67657 4.65711 4.63771 4.61839	4.2171 - 2 4.2030 4.1889 4.1748 4.1608 4.1168 4.1328 4.1189 4.1050 4.0911	5.5144 - 1 5.4959 5.4775 5.4591 5.4407 5.4224 5.4042 5.3859 5.3878
20000 20100 20200 20300 20400 20500 20600 20700 20800 20900	19981 20081 20180 20280 20380 20480 20580 20679 20779 20879	447.415 447.059 446.703 446.347 445.991 445.636 445.280 444.924 444.568	-12.255 -12.611 -12.967 -13.323 -13.679 -14.034 -14.390 -14.746 -15.102 -15.458	-24.586 -24.784 -24.982 -25.179 -25.377 -25.575 -25.772 -25.970 -26.168 -26.366	4.66006 + 2 4.64061 4.62122 4.60190 4.58265 4.56346 4.54434 4.52528 4.50629 4.48736	1.37612 + 1 1.37037 1.36465 1.35894 1.35326 1.34759 1.34194 1.33631 1.33631 1.33071	4.59912 - 1 4.57993 4.56079 4.54173 4.52272 4.50379 4.48491 4.46610 4.44736 4.42868	4.0773 - 2 4.0635 4.0497 4.0360 4.0224 4.0087 3.9951 3.9815 3.9680 3.9545	5.3316 - 1 5.3135 5.2956 5.2776 5.2597 5.2419 5.2241 5.1087 5.1710
21000 21100 21200 21300 21400 21500 21600 21700 21800 21900	20979 21079 21178 21278 21378 21478 21578 21677 21677 21877	443.856 443.500 443.144 442.788 442.432 442.077 441.721 441.365 441.009	-15.814 -16.170 -16.526 -16.882 -17.238 -17.593 -17.949 -18.305 -18.661 -19.017	-26.563 -26.761 -26.959 -27.157 -27.354 -27.552 -27.750 -27.947 -28.145 -28.343	4.430969 4.43096 4.43096 4.41229 4.37368 4.37514 4.35666 4.33824 4.31989 4.30160	1.31955 + 1 1.31399 1.30846 1.30295 1.29745 1.29745 1.28652 1.28108 1.27566 1.27026	4.41006 - 1 4.37 151 4.37 302 8.35459 4.335459 4.31792 4.29969 4.28151 4.26340 4.24535	3.9410 - 2 3.9276 3.9142 3.9008 3.8875 3.8742 3.8610 3.8477 3.8346 3.8214	5.1534 - 1 5.1358 5.1183 5.1008 5.0834 5.0860 5.0487 5.0314 5.0142
22000 22100 22200 22300 22400 22500 22600 22700 22800 22900	21977 22077 22176 22276 22376 22476 22576 22576 22675 22775 22875	440.297 439.941 439.585 439.230 438.874 438.518 436.162 437.450 437.450	-19.373 -19.729 -20.085 -20.440 -20.796 -21.152 -21.508 -21.864 -22.220 -22.575	-28.540 -28.738 -28.936 -29.134 -29.331 -29.529 -29.727 -29.924 -30.122 -30.320	4.28337 + 2 4.26520 4.24710 4.22906 4.21109 4.19317 4.17532 4.15753 4.13980 4.12213	1.26488 + 1 1.25951 1.25417 1.24884 1.24353 1.23824 1.23297 1.22772 1.22772	4.22736 - 1 4.20943 4.19156 4.17376 4.15602 4.13834 4.12072 4.10316 4.08566 4.06823	3.8083 - 2 3.7952 3.7852 3.7691 3.7562 3.7432 3.7303 3.7174 3.7046 3.6918	4.9798 - 1 4.9627 4.9457 4.9286 4.9117 4.8547 4.8610 4.8610 4.8842
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TABLE I▼.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperature	e		Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P _o	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
23000 23100 23200 23300 23400 23500 23600 23700 23800 23900	23025 23126 23226 23326 23426 23527 23627 23727 23827 23827 23927	436.648 436.292 435.935 435.578 435.222 434.865 434.509 434.152 433.795	-23.022 -23.378 -23.735 -24.092 -24.448 -24.805 -25.161 -25.518 -25.875 -26.231	-30.568 -30.766 -30.964 -31.162 -31.360 -31.558 -31.756 -31.954 -32.153 -32.351	4.10006 + 2 4.08249 4.06498 4.04754 4.03015 4.01282 3.99556 3.97835 3.96121 3.94412	1.21075 + 1 1.20556 1.20039 1.19524 1.19010 1.18499 1.17481 1.16974 1.16470	4.04645 - 1 4.02911 4.01183 3.99461 3.97745 3.96035 3.94331 3.92633 3.90941 3.89255	3.6758 - 2 3.6630 3.6503 3.6376 3.6249 3.6123 3.5997 3.5872 3.5746 3.5622	4.8065 - 1 4.7899 4.7732 4.7566 4.7401 4.7236 4.7071 4.6907 4.6743
24000 24100 24200 24300 24500 24500 24600 24700 24800 24900	24028 24128 24328 24328 24429 24529 24529 24629 24729 24830 24930	433.082 432.726 432.369 432.012 431.656 431.299 430.942 430.586 430.229	-26.588 -26.944 -27.301 -27.658 -28.014 -28.371 -28.728 -29.084 -29.441 -29.797	-32.549 -32.747 -32.945 -33.143 -33.539 -33.738 -33.936 -34.134 -34.332	3.92710 + 2 3.91013 3.89322 3.87637 3.85959 3.84286 3.82619 3.80957 3.79302 3.77652	1.15967 + 1 1.15466 1.14469 1.13974 1.13987 1.12987 1.12497 1.12008 1.11521	3.87574 - 1 3.85900 3.84231 3.82568 3.80912 3.79260 3.77615 3.75976 3.74342 3.72714	3.5497 - 2 3.5373 3.5249 3.5125 3.5105 3.4879 3.4757 3.4634 3.4512 3.4391	4.6417 - 1 4.6254 4.6092 4.5931 4.5770 4.5609 4.5449 4.5289 4.5129 4.4970
25000 25100 25200 25300 25400 25500 25600 25700 25800 25900	25030 25130 25230 25331 25431 25531 25631 25732 25832 25932	429.516 429.159 428.803 428.46 428.090 427.733 427.376 427.020 426.663 426.306	-30.154 -30.511 -30.867 -31.224 -31.580 -31.937 -32.294 -32.650 -33.007 -33.364	-34.530 -34.728 -34.926 -35.124 -35.522 -35.521 -35.719 -36.115 -36.313	3.76009 + 2 3.74371 3.72739 3.71112 3.69492 3.67877 3.66267 3.64664 3.63066 3.61474	1.11035 + 1 1.10552 1.10070 1.09589 1.09111 1.08634 1.08159 1.07685 1.07213 1.06743	3.71092 - 1 3.69475 3.67464 3.66259 3.64660 3.63366 3.61478 3.59895 3.58319 3.56747	3.4270 - 2 3.4149 3.4028 3.3908 3.3788 3.3668 3.3549 3.3430 3.3311 3.3193	4.4812 - 1 4.4696 4.4339 4.4182 4.4025 4.3869 4.3714 4.3559 4.3404
26000 26100 26200 26300 26400 26500 26600 26700 26800 26900	26032 26133 26233 26333 26433 26534 26534 26734 26834 26935	425.950 425.593 425.237 424.880 424.523 424.167 423.454 423.454 423.454	-33.720 -34.077 -34.433 -34.790 -35.147 -35.503 -35.860 -36.216 -36.573 -36.930	-36.511 -36.709 -36.907 -37.106 -37.304 -37.502 -37.700 -37.898 -38.096 -38.294	3.59888 + 2 3.58307 3.55732 3.55762 3.555162 3.53598 3.52040 3.50487 3.48940 3.47398 3.45862	1.06275 + 1 1.05808 1.05343 1.04879 1.04417 1.03957 1.03499 1.03042 1.02587 1.02133	3.55181 - 1 3.53621 3.52067 3.50518 3.48974 3.47436 3.45904 3.44377 3.42855 3.41339	3.3075 - 2 3.2957 3.2840 3.2723 3.2606 3.2490 3.2374 3.2258 3.2142 3.2027	4.3250 - 1 4.3094 4.2942 4.2789 4.2637 4.2484 4.2333 4.2181 4.2030 4.1880
27000 27100 27200 27300 27400 27500 27500 27700 27800 27900	27035 27135 27236 27336 27436 27536 27537 27737 27737 27837 27937	422.384 422.027 421.670 421.314 420.957 420.601 420.244 419.887 419.531	-37.286 -37.643 -38.000 -38.356 -38.713 -39.069 -39.426 -39.783 -40.139 -40.496	-38.492 -38.691 -38.889 -39.087 -39.285 -39.483 -39.681 -39.879 -40.077 -40.275	3.44331 + 2 3.42806 3.41286 3.39772 3.38263 3.36759 3.35261 3.33769 3.32281 3.30800	1.01681 + 1 1.01230 1.00782 1.00335 9.98889 + 0 9.94450 9.90026 9.85619 9.816227 9.76851	3.39828 - 1 3.38323 3.36823 3.35329 3.35329 3.32356 3.32356 3.30877 3.27404 3.277936 3.26474	3.1912 - 2 3.1798 3.1684 3.1570 3.1456 3.1343 3.1230 3.1117 3.1005 3.0893	4.1730 - 1 4.1580 4.1430 4.1282 4.1133 4.0985 4.0837 4.0690 4.0543 4.0397
28000 28100 28200 28300 28400 28500 28600 28700 28800 28900	28038 28138 28238 28338 28439 28539 28639 28740 28840 28940	418.818 418.461 418.104 417.748 417.034 416.678 416.321 416.321 415.608	-40.852 -41.209 -41.566 -41.922 -42.279 -42.636 -42.992 -43.349 -43.705 -44.062	-40.474 -40.672 -40.870 -41.068 -41.266 -41.464 -41.662 -41.869 -42.059	3.29323 + 2 3.27852 3.26386 3.24926 3.23470 3.22021 3.20576 3.19136 3.17702 3.16273	9.72491 + 0 9.68147 9.63818 9.59505 9.55208 9.50926 9.46660 9.42410 9.38174 9.33955	3.25017 - 1 3.23565 3.22118 3.20677 3.19241 3.17810 3.16384 3.14963 3.13548 3.12138	3.0781 - 2 3.0670 3.0559 3.0448 3.0338 3.0227 3.0118 3.0008 2.9899 2.9790	4.0251 - 1 4.0105 3.9960 3.9815 3.9670 3.9526 3.9383 3.9239 3.9097 3.8954
29000 29100 29200 29300 29400 29500 29600 29700 29800 29900	29040 29141 29241 29341 29442 29542 29642 29742 29843 29943	415.251 414.895 414.538 414.182 413.468 413.112 412.755 412.398 412.042	-44.419 -44.775 -45.132 -45.845 -46.202 -46.558 -46.755 -47.272 -47.628	-42.455 -42.653 -42.851 -43.047 -43.247 -43.445 -43.644 -43.842 -44.040	3.14850 + 2 3.13431 3.12018 3.10609 3.09206 3.07808 3.06416 3.05028 3.03645 3.03645	9.29750 + 0 9.25561 9.21388 9.17229 9.13086 9.08958 9.04845 9.00747 8.9665 8.92597	3.10732 - 1 3.09332 3.07937 3.06548 3.05163 3.03783 3.02409 3.01039 2.99675 2.98315	2.9681 - 2 2.9573 2.9465 2.9357 2.9250 2.9143 2.9036 2.8929 2.8823 2.8717	3.8812 - 1 3.8670 3.8529 3.8388 3.8248 3.8108 3.7968 3.7829 3.7690 3.7551
30000 30100 30200 30300 30400 30500 30600 30700 30800 30900	30043 30144 30244 30344 30545 30645 30745 30846 30946	411.685 411.329 410.972 410.615 410.259 409.902 409.545 409.189 408.832 408.476	-47.985 -48.341 -48.698 -49.055 -49.411 -49.768 -50.481 -50.481 -50.838 -51.194	-44.436 -44.634 -44.832 -45.030 -45.228 -45.625 -45.625 -45.623 -46.021	3.00895 + 2 2.99528 2.98166 2.96808 2.95456 2.94109 2.92766 2.91429 2.90096 2.88769	8.88544 + 0 8.84506 8.80483 8.76475 8.72481 8.68502 8.64539 8.60589 8.56654 8.52734	2.96961 - 1 2.95611 2.94267 2.92927 2.91592 2.90263 2.88938 2.87618 2.86303 2.84993	2.8611 - 2 2.8506 2.8401 2.8296 2.8192 2.8088 2.7984 2.7880 2.7777 2.7674	3.7413 - 1 3.7275 3.7138 3.7001 3.6865 3.6728 3.6593 3.6457 3.6322 3.6188
	i			i.					

Altit	ude	Т	emperatur	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _o	ρ , lb ft ⁻³	$\frac{\rho}{\rho_o}$
23000 23100 23200 23300 23400 23500 23600 23700 23800 23900	22975 23074 23174 23274 23374 23474 23573 23673 23773 23873	436.739 436.383 436.027 435.671 435.315 434.960 434.604 434.248 433.892	-22.931 -23.287 -23.643 -23.999 -24.355 -24.710 -25.066 -25.422 -25.778 -26.134	-30.517 +30.715 -30.913 -31.110 -31.308 -31.506 -31.703 -31.901 -32.099 -32.296	4.10452 + 2 4.08698 4.06949 4.05207 4.01740 4.01740 4.00016 3.98298 3.96585 3.94679	1.21206 + 1 1.20688 1.20172 1.19657 1.19145 1.18634 1.18125 1.17617 1.17112	4.05085 - 1 4.03353 4.01628 3.99908 3.98194 3.96487 3.94785 3.93089 3.91399 3.81399	3.6790 - 2 3.66536 3.66536 3.6409 3.6283 3.6156 3.6031 3.5905 3.5780 3.5656	4.8108 - 1 4.7941 4.7775 4.7609 4.7444 4.7279 4.7115 4.6951 4.6787 4.6624
24000 24100 24200 24300 24400 24500 24600 24700 24800 24900	23972 24072 24172 24272 24371 24571 24571 24571 24771 24870	433.181 432.825 432.469 432.113 431.757 431.402 431.046 430.690 430.334 429.979	-26.489 -26.845 -27.201 -27.557 -27.913 -28.268 -28.624 -28.980 -29.336 -29.691	-32.494 -32.692 -32.889 -33.087 -33.285 -33.482 -33.680 -34.075 -34.273	3.93179 + 2 3.91484 3.89796 3.88113 3.86437 3.84766 3.83101 3.81442 3.79789 3.78142	1.16106 + 1 1.15605 1.15107 1.14610 1.14115 1.13621 1.13130 1.12640 1.12152	3.88037 - 1 3.86365 3.84699 3.83038 3.81383 3.79735 3.76091 3.76454 3.74823 3.73197	3.5531 - 2 3.5407 3.5284 3.5160 3.5037 3.4914 3.4792 3.4670 3.4548 3.4427	4.6462 - 1 4.6300 4.6138 4.5976 4.5816 4.5655 4.5495 4.5336 4.5176 4.5018
25000 25100 25200 25300 25400 25500 25600 25700 25800 25900	24970 25070 25170 25269 25369 25469 25569 25668 25768 25868	429.623 429.267 428.911 428.555 428.200 427.844 427.488 427.132 426.777 426.421	-30.047 -30.403 -30.759 -31.115 -31.470 -31.826 -32.182 -32.538 -32.893 -33.249	-34.471 -34.668 -34.866 -35.064 -35.261 -35.459 -35.657 -35.657 -36.052	3.76500 + 2 3.74864 3.73234 3.71610 3.69992 3.68379 3.66772 3.65171 3.63575 3.61985	1.11180 + 1 1.10697 1.10216 1.09736 1.09259 1.08782 1.08308 1.07835 1.07364 1.06894	3.71577 - 1 3.69962 3.6835h 3.66751 3.65153 3.63562 3.61976 3.60395 3.58821 3.57251	3.4306 - 2 3.4185 3.4065 3.3945 3.3825 3.3705 3.3586 3.3467 3.3349 3.3231	4.4859 - 1 4.4544 4.4544 4.4537 4.4230 4.4074 4.3918 4.3763 4.3763 4.3454
26000 26100 26200 26300 26400 26500 26600 26700 26800 26900	25968 26067 26167 26267 26367 26466 26566 26666 26766 26865	426.065 425.710 425.354 424.998 424.642 424.287 423.931 423.230 422.864	~33.605 -34.316 -34.672 -35.028 -35.383 -35.739 -36.450 -36.806	-36.447 -36.645 -36.842 -37.040 -37.238 -37.435 -37.435 -37.830 -38.028 -38.226	3.60401 + 2 3.58822 3.57249 3.55681 3.54119 3.52563 3.51012 3.49467 3.47928 3.46393	1.06426 + 1 1.05960 1.05346 1.05033 1.04571 1.04112 1.03654 1.03198 1.02743	3.55688 - 1 3.54130 3.52577 3.51030 3.49489 3.47953 3.46422 3.44897 3.43378 3.41864	3.3113 - 2 3.2976 3.2878 3.2762 3.2645 3.2529 3.2413 3.2297 3.2182 3.2067	4.3146 4.3146 4.2993 4.2840 4.2688 4.2536 4.2384 4.2233 4.2082 4.1932
27000 27100 27200 27300 27400 27500 27600 27700 27800 27900	26965 27065 27165 27264 27364 27464 27564 27663 27763 27863	422.508 422.152 421.797 421.481 421.085 420.730 420.374 420.018 419.663 419.307	-37.162 -37.518 -37.873 -38.229 -38.585 -38.940 -39.296 -39.652 -40.007 -40.363	-38.423 -38.621 -38.818 -39.016 -39.214 -39.411 -39.609 -39.806 -40.004 -40.202	3.44865 + 2 3.43341 3.41824 3.40311 3.38805 3.37303 3.35807 3.34317 3.32831 3.31351	1.01888 + 1 1.01389 1.00941 1.00049 1.00049 9.96056 + 0 9.91638 9.87236 9.82850 9.78480	3.40355 - 1 3.38852 3.37354 3.35861 3.34374 3.32892 3.31416 3.29945 3.28479 3.27018	3.1952 - 2 3.1838 3.1724 3.1610 3.1497 3.1384 3.1271 3.1159 3.1047 3.0935	4.1782 - 1 4.1632 4.1483 4.1335 4.1186 4.1039 4.0891 4.0744 4.07597
28000 28100 28200 28300 28400 28500 28600 28700 28800 28900	27962 28062 28162 28262 28361 28461 28561 28661 28760 28860	418.951 418.596 418.240 417.529 417.173 416.818 416.462 416.106 415.751	-40.719 -41.074 -41.430 -41.786 -42.141 -42.497 -42.857 -43.208 -43.564 -43.919	-40.399 -40.597 -40.794 -40.992 -41.190 -41.387 -41.585 -41.980 -42.177	3.29877 + 2 3.28408 3.26944 3.25485 3.24032 3.22584 3.21141 3.19704 3.18271 3.16844	9.74126 + 0 9.69788 9.65465 9.61157 9.56866 9.52590 9.48329 9.44084 9.39855 9.35641	3.25563 - 1 3.24113 3.22668 3.21229 3.19795 3.18366 3.16942 3.15523 3.14109 3.12701	3.0823 - 2 3.0712 3.0601 3.0491 3.0380 3.0270 3.0161 3.0051 2.9942 2.9833	4.0305 ~ 1 4.0160 4.0015 3.9870 3.9726 3.9582 3.9439 3.9296 3.9153 3.9011
29000 29100 29200 29300 29400 29500 29600 29700 29800 29900	28960 29059 29159 29259 29359 29458 29558 29658 29757 29857	415.395 415.039 414.684 414.328 413.617 413.261 412.906 412.550 412.194	- 44 . 275 - 44 . 631 - 44 . 631 - 45 . 986 - 45 . 697 - 46 . 053 - 46 . 053 - 46 . 764 - 47 . 120 - 47 . 476	-42.375 -42.573 -42.570 -42.968 -43.165 -43.363 -43.560 -43.758 -43.956	3.15422 + 2 3.14006 3.12594 3.11188 3.09787 3.08390 3.06999 3.05614 3.04233 3.02857	9.31442 + 0 9.27258 9.23090 9.18937 9.14799 9.10677 9.06569 9.02476 8.98399 8.94336	3.11298 ~ 1 3.09899 3.08506 3.07118 3.05736 3.04358 3.02985 3.01617 3.00254 2.98897	2.9725 - 2 2.9617 2.9607 2.9401 2.9294 2.9187 2.9081 2.8974 2.8868 2.8762	3.8869 - 1 3.8728 3.8527 3.8446 3.8306 3.8166 3.8027 3.7888 3.7749 3.7611
30000 30100 30200 30300 30400 30500 30600 30700 30800 30900	29957 30057 30156 30256 30356 30455 30555 30655 30655	411.839 411.483 411.128 410.772 410.417 410.061 409.705 409.350 408.994 408.639	-47.831 -48.187 -48.589 -48.5898 -49.253 -49.609 -49.965 -50.320 -50.676	-44.351 -44.548 -44.746 -44.943 -45.141 -45.536 -45.733 -45.931 -46.128	3.01486 + 2 3.00121 2.98760 2.97404 2.96054 2.94708 2.93368 2.92032 2.90701 2.89375	8.90289 + 0 8.86256 8.82238 8.78235 8.74247 8.70273 8.66314 8.62370 8.58440 8.54525	2.97544 - 1 2.96196 2.94853 2.93515 2.92182 2.90854 2.89531 2.88531 2.86900 2.85591	2.8657 - 2 2.8552 2.8847 2.8342 2.8238 2.8134 2.8030 2.7027 2.7624 2.7721	3.7473 - 1 3.7335 3.77198 3.77061 3.6925 3.6789 3.6653 3.6518 3.6383 3.6249

TABLE IV.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altitude		т	emperatur	e	Pressure			Density		
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _o	ρ , 1b ft ⁻³	<u>\rho_0</u>	
31000 31100 31200 31300 31400 31500 31600 31700 31800 31900	31046 31146 31247 31347 31347 31548 31648 31748 31849 31949	408.119 407.762 407.406 407.049 406.693 406.336 405.979 405.623 405.266 404.909	-51.551 -51.908 -52.264 -52.621 -52.977 -53.334 -53.691 -54.047 -54.404 -54.761	-46.417 -46.615 -46.813 -47.012 -47.210 -47.408 -47.606 -47.804 -47.8002 -48.002	2.87446 + 2 2.86129 2.84816 2.83508 2.82205 2.80907 2.79613 2.78325 2.77041 2.75762	8.48829 + 0 8.44938 8.41061 8.37199 8.33351 8.29517 8.25698 8.21893 8.18102 8.14326	2.83687 - 1 2.82387 2.81091 2.79801 2.778515 2.77233 2.75957 2.74685 2.73418 2.72156	2.7571 - 2 2.7469 2.7367 2.7265 2.7164 2.7062 2.6961 2.6861 2.6760 2.6760	3.6053 - 1 3.5919 3.5786 3.5653 3.5520 3.5388 3.5256 3.5124 3.4993 3.4862	
32000 32100 32200 32300 32400 32500 32600 32700 32800 32900	32049 32149 32250 32350 32450 32551 32551 32751 32852 32952	404.553 404.196 403.840 403.126 402.770 402.413 402.057 401.700 401.343	-55.117 -55.474 -55.830 -56.187 -56.544 -56.900 -57.257 -57.613 -57.970 -58.327	-48.398 -48.597 -48.795 -48.793 -49.191 -49.389 -49.587 -49.785 -49.983 -50.181	2.74488 + 2 2.73219 2.71954 2.70694 2.69439 2.68189 2.66943 2.65702 2.64466 2.63234	8.10563 + 0 8.06815 8.03081 7.97360 7.975654 7.91961 7.88283 7.84618 7.80967 7.77330	2.70899 - 1 2.69646 2.68398 2.67155 2.65916 2.64682 2.63452 2.63452 2.62228 2.61008 2.59792	2.6561 - 2 2.6461 2.6362 2.6263 2.6164 2.6066 2.5968 2.5870 2.5773 2.5675	3.4731 - 1 3.4601 3.4472 3.4342 3.4213 3.4085 3.3956 3.3828 3.3701 3.3574	
33000 33100 33200 33300 33400 33500 33600 33700 33800 33900	33052 33153 33253 33353 33454 33554 33654 33755 33855 33955	400.987 400.630 400.273 399.917 399.560 399.204 398.847 398.490 398.134 397.777	-58.683 -59.0%0 -59.397 -59.753 -60.110 -60.823 -61.180 -61.536	-50.380 -50.578 -50.776 -50.974 -51.172 -51.370 -51.568 -51.766 -51.965	2.62007 + 2 2.60705 2.59567 2.59354 2.57145 2.557145 2.55744 2.553547 2.52357 2.51171	7.73707 + 0 7.70097 7.66501 7.62919 7.59350 7.55794 7.52253 7.48724 7.45209 7.41708	2.58581 - 1 2.57375 2.56173 2.54975 2.53783 2.52594 2.51411 2.50232 2.49057 2.47887	2.5578 - 2 2.5482 2.5385 2.5289 2.5193 2.5098 2.5003 2.4908 2.4613 2.4718	3.3447 - 1 3.3321 3.3195 3.3069 3.2944 3.2819 3.2694 3.2570 3.2446 3.2322	
34000 34100 34200 34300 34500 34500 34600 34700 34800 34900	34056 34156 34256 34357 34557 34557 34558 34758 34858 34959	397.421 397.064 396.707 396.351 395.637 395.637 395.281 394.924 394.568 394.211	-62.249 -62.606 -62.963 -63.676 -64.033 -64.389 -64.746 -65.102	-52.361 -52.559 -52.757 -52.955 -53.153 -53.351 -53.550 -53.748 -53.946 -54.144	2.49990 + 2 2.48813 2.47641 2.46473 2.45310 2.445151 2.42996 2.41846 2.40701 2.39559	7.38219 + 0 7.34744 7.31283 7.27834 7.24399 7.20977 7.17568 7.14172 7.10789 7.07419	2.46721 - 1 2.45559 2.44402 2.43250 2.42102 2.40958 2.39819 2.38684 2.37553 2.36427	2.4624 - 2 2.4530 2.4437 2.4343 2.4250 2.4157 2.4065 2.3973 2.3881 2.3789	3.2199 - 1 3.2077 3.1954 3.1832 3.1710 3.1589 3.1468 3.1347 3.1227 3.1107	
35000 35200 35400 35600 35800 36000 36200 36400 36600 36800	35059 35260 35460 35661 35862 36062 36263 36464 36664	393.854 393.141 392.428 391.715 391.001 390.288 389.970 389.970 389.970	-65.816 -66.529 -67.242 -67.955 -68.669 -69.382 -69.700 -69.700 -69.700	-54.342 -54.738 -55.134 -55.531 -55.927 -56.323 -56.500 -56.500 -56.500	2.38423 + 2 2.36162 2.33919 2.31693 2.29484 2.27293 2.25119 2.22965 2.20832 2.18719	7.04062 + 0 6.97386 6.90762 6.84189 6.77667 6.71195 6.64775 6.58415 6.52116 6.45878	2.35305 - 1 2.33074 2.30860 2.28663 2.26483 2.24320 2.22175 2.20049 2.17944 2.15859	2.3697 - 2 2.3515 2.3334 2.3154 2.2975 2.2778 2.2598 2.2382 2.2168 2.1956	3.0987 - 1 3.0749 3.0513 3.0277 3.0043 2.9811 2.9550 2.9267 2.8987 2.8710	
37000 37200 37400 37600 37800 38000 38200 38400 38400 38800	37066 37266 37467 37668 37869 38069 38270 38471 38672 38872	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	2.16627 + 2 2.14555 2.12502 2.10469 2.08456 2.06461 2.04486 2.02530 2.005592 1.98673	6.39699 + 0 6.33579 6.27518 6.21515 6.15569 6.09680 6.03847 5.98071 5.92349 5.86682	2.13794 - 1 2.11749 2.09723 2.07717 2.05730 2.03761 2.01812 1.99882 1.97969 1.96075	2.17%6 - 2 2.1538 2.1332 2.1127 2.0925 2.0725 2.0725 2.0527 2.0330 2.0136 1.99%3	2.8435 - 1 2.8163 2.7894 2.7627 2.7363 2.7101 2.6842 2.6585 2.6330 2.6079	
39000 39200 39400 39600 39800 40000 40200 40400 40600 40800	39073 39274 39475 39675 39876 40077 40278 40478 40679 40880	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.96773 + 2 1.94890 1.93026 1.91179 1.89350 1.87539 1.85745 1.83968 1.82208 1.80465	5.81070 + 0 5.75511 5.70005 5.64552 5.59151 5.53802 5.48504 5.43257 5.38060 5.32912	1.94200 - 1 1.92342 1.90502 1.88679 1.86874 1.85086 1.83316 1.81562 1.79825 1.78105	1.9753 - 2 1.9564 1.9376 1.9191 1.9007 1.8826 1.8646 1.8467 1.8291	2.5829 - 1 2.5582 2.55337 2.5095 2.4855 2.4617 2.4381 2.4148 2.3917 2.3688	
\$1000 \$1200 \$1400 \$1600 \$1800 \$2000 \$2200 \$2400 \$2600 \$2800	41081 41282 41482 41683 41884 42085 42286 42486 42687 42888	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.78738 + 2 1.77028 1.75335 1.73657 1.71996 1.70351 1.68721 1.67107 1.65508 1.63925	5.27814 + 0 5.22765 5.17763 5.12810 5.07904 5.03045 4.98233 4.93466 4.88746 4.84070	1.76401 - 1 1.74713 1.73042 1.71387 1.69747 1.68123 1.66515 1.64922 1.63344 1.61781	1.7942 - 2 1.7771 1.7601 1.7432 1.7265 1.7100 1.6937 1.6775 1.6614	2.3462 - 1 2.3237 2.3015 2.2795 2.2577 2.2361 2.2147 2.1935 2.1725 2.1517	

Altit	ude	Т	emperature	•	Pressure			Density		
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P _o	ρ, lb ft ⁻³	$\frac{\rho}{\rho_{o}}$	
31000 31100 31200 31300 31400 31500 31600 31700 31800 31900	30954 31054 31153 31253 31353 31452 31652 31652 31752 31851	408.283 407.928 407.572 407.216 406.861 406.505 406.150 405.794 405.439 405.083	-51.387 -51.742 -52.098 -52.454 -52.809 -53.165 -53.520 -53.876 -54.231	-46.326 -46.524 -46.721 -46.721 -47.116 -47.314 -47.511 -47.709 -47.906	2.88054 + 2 2.867427 2.84121 2.82820 2.81523 2.80231 2.78944 2.77662 2.76385	8.50624 + 0 8.46738 8.42866 8.39009 8.35166 8.31337 8.27522 8.23722 8.19936 8.16164	2.84288 - 1 2.82989 2.81695 2.81695 2.80406 2.779121 2.77842 2.76567 2.75297 2.74031 2.72771	2.7619 - 2 2.7516 2.7415 2.7313 2.7212 2.7110 2.7010 2.6909 2.6809 2.6709	3.6115 - 3.5981 3.5848 3.5715 3.5583 3.5450 3.5319 3.5187 3.5056 3.4926	
32000 32100 32200 32300 32400 32500 32600 32700 32800 32900	31951 32051 32150 32250 32350 32449 32549 32649 32748 32848	404.728 404.372 404.017 403.661 403.306 402.950 402.595 402.239 401.884 401.528	-54.942 -55.298 -55.653 -56.009 -56.364 -56.720 -57.075 -57.431 -57.786 -58.142	-48.301 -48.499 -48.696 -48.894 -49.289 -49.486 -49.684 -49.681 -50.079	2.75112 + 2 2.73845 2.72581 2.71323 2.70070 2.68821 2.67576 2.66337 2.65102 2.63872	8.12406 + 0 8.08663 8.04933 8.01217 7.97515 7.93827 7.90153 7.86493 7.82846 7.79213	2.71515 - 1 2.70264 2.69017 2.67775 2.66538 2.65305 2.64077 2.62854 2.61635 2.60421	2.6610 - 2 2.6510 2.6411 2.6312 2.6214 2.6116 2.6018 2.5920 2.5823 2.5726	3.4795 - 3.4665 3.4536 3.4278 3.4278 3.4150 3.4022 3.3894 3.3767 3.3640	
33000 33100 33200 33300 33400 33500 33600 33700 33800 33900	32948 33048 33147 33247 33347 33446 33546 33646 33745 33845	401.173 400.817 400.462 400.106 399.751 399.395 399.040 398.684 398.329 397.973	-58.497 -58.853 -59.208 -59.564 -59.919 -60.275 -60.630 -60.986 -61.341	-50.276 -50.474 -50.671 -50.866 -51.264 -51.461 -51.659 -51.856 -52.054	2.62646 + 2 2.61425 2.60209 2.58997 2.57790 2.56588 2.55390 2.54196 2.53007 2.51823	7.75594 + 0 7.71989 7.68397 7.64819 7.61254 7.57703 7.54165 7.50641 7.47130 7.43633	2.59212 - 1 2.58007 2.56806 2.55611 2.54419 2.53232 2.52050 2.50872 2.49699 2.48530	2.5629 - 2 2.5532 2.5436 2.5340 2.5245 2.5149 2.5054 2.4959 2.4865 2.4770	3.3513 - 3.3387 3.3261 3.3136 3.3010 3.2886 3.2761 3.2637 3.2514 3.2390	
34000 34100 34200 34300 34500 34500 34600 34700 34800 34900	33945 34044 34144 34244 34343 34443 34543 34542 34742 34742	397.618 397.262 396.907 396.552 396.196 395.841 395.485 395.130 394.419	-62.052 -62.408 -62.763 -63.118 -63.829 -64.185 -64.580 -64.896 -65.251	-52.251 -52.449 -52.646 -52.844 -53.239 -53.436 -53.633 -53.6331 -54.028	2.50643 + 2 2.49468 2.48297 2.47130 2.45968 2.44811 2.433657 2.42509 2.41364 2.40224	7.40148 + 0 7.36677 7.33220 7.29775 7.26343 7.22925 7.19520 7.16128 7.12748 7.09382	2.47365 - 1 2.46205 2.45050 2.43898 2.42752 2.41609 2.40471 2.39337 2.38208 2.37083	2.4676 - 2 2.4583 2.4489 2.4396 2.4303 2.4210 2.4118 2.4026 2.3924 2.3842	3.2267 - 3.2145 3.2023 3.1901 3.1779 3.1658 3.1537 3.1417 3.1297	
35000 35200 35400 35600 35800 36000 36200 36400 36600 36800	34941 35141 35340 35539 35739 35938 36137 36337 36536 36735	394.064 393.353 392.642 391.931 391.220 390.509 389.970 389.970 389.970	-65.606 -66.317 -67.028 -67.739 -68.450 -69.161 -69.700 -69.700 -69.700	-54.226 -54.621 -55.016 -55.411 -55.805 -56.200 -56.500 -56.500 -56.500	2.39089 + 2 2.36831 2.34590 2.32366 2.30160 2.27971 2.25798 2.23646 2.21514 2.19402	7.06029 + 0 6.99361 6.92744 6.86178 6.79662 6.73197 6.66782 6.60425 6.54129 6.47893	2.35962 - 1 2.33734 2.31522 2.29328 2.27150 2.24990 2.22846 2.20721 2.18617 2.16533	2.3751 - 2 2.3569 2.3389 2.3209 2.3030 2.2853 2.2866 2.2450 2.2236 2.2236	3.1058 - 3.0820 3.0584 3.0349 3.0115 2.9883 2.9639 2.9356 2.9356 2.9377 2.8799	
37000 37200 37400 37600 37800 38000 38200 38400 38400 38600 38800	36934 37134 37333 37532 37732 37931 38130 38329 38529 38529	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	2.17310 + 2 2.15239 2.13187 2.11155 2.09142 2.07148 2.05174 2.03218 2.01281 1.99363	6.41717 + 0 6.35600 6.29541 6.23540 6.17596 6.11709 6.05878 6.00103 5.94383 5.88718	2.14469 - 1 2.12424 2.10399 2.08394 2.06407 2.04440 2.02491 2.00561 1.98649 1.96756	2.1814 - 2 2.1606 2.1400 2.1196 2.0994 2.0794 2.0596 2.0400 2.0205 2.0205	2.8525 ~ 2.8253 2.7984 2.7717 2.7453 2.7191 2.6932 2.6675 2.6421 2.6169	
39000 39200 39400 39600 39800 40000 40200 40400 40600 40600	38927 39126 39326 39525 39724 39923 40123 40322 40521	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.97463 + 2 1.95580 1.93716 1.91870 1.90042 1.88230 1.86437 1.84660 1.82900 1.81157	5.83107 + 0 5.77549 5.72044 5.66592 5.61193 5.55844 5.50547 5.45300 5.40104 5.34957	1.94880 - 1 1.93023 1.91183 1.89361 1.87556 1.85769 1.83999 1.82245 1.80508 1.78788	1.9822 - 2 1.9633 1.9446 1.9260 1.9077 1.8895 1.8715 1.8537 1.8340 1.8185	2.5920 - 2.5673 2.5428 2.5186 2.4945 2.4708 2.4472 2.4239 2.4008 2.3779	
41000 41200 41400 41600 42000 42200 42400 42600 42800	40920 41119 41318 41517 41716 41916 42115 42314 42513 42712	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.79431 + 2 1.77721 1.76027 1.74350 1.72689 1.71043 1.69414 1.67799 1.66201 1.64617	5.29859 + 0 5.24810 5.19809 5.14856 5.09950 5.05091 5.00278 4.95511 4.90790 4.86114	1.77084 - 1 1.75397 1.73726 1.72070 1.70431 1.68807 1.67198 1.65605 1.64027	1.8012 - 2 1.7840 1.7670 1.7502 1.7335 1.7170 1.7006 1.6844 1.6684	2.3553 - 2.3328 2.3106 2.2886 2.2468 2.2452 2.2238 2.2026 2.1816 2.1608	

TABLE IX.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	т	emperatur	e		Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _o	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
43000 43200 43400 43600 43600 44000 44000 44000 44600 44800	43089 43290 43491 43691 43692 44093 44294 44495 44696	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.62357 + 2 1.60803 1.59265 1.57741 1.56232 1.54738 1.53257 1.51791 1.50339 1.48901	4.79439 + 0 4.74852 4.70310 4.65810 4.61354 4.56941 4.52569 4.48240 4.43951 4.39704	1.60234 - 1 1.58701 1.57182 1.55679 1.554189 1.52714 1.51253 1.49806 1.488373 1.46954	1.6298 - 2 1.6142 1.5987 1.5835 1.5683 1.5533 1.5533 1.5384 1.5237 1.5091	2.1311 - 1 2.1108 2.0906 2.0706 2.0508 2.0311 2.0117 1.9925 1.9734 1.9545
45000 45400 45400 45600 45800 46000 46200 46400 46400 46800	45097 45298 45499 45700 45901 46102 46303 46503 46704 46905	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.47476 + 2 1.46066 1.44668 1.43284 1.41914 1.40556 1.39211 1.37879 1.36560 1.35254	4.35498 + 0 4.31332 4.27205 4.23118 4.19070 4.15061 4.11091 4.07158 4.03263 3.99405	1.45548 - 1 1.44156 1.42776 1.41411 1.40058 1.38718 1.37391 1.36076 1.34775 1.33485	1.4804 - 2 1.4662 1.4522 1.4383 1.4246 1.4109 1.3974 1.3841 1.3708 1.3577	1.9358 - 1 1.9173 1.8990 1.8808 1.8628 1.8450 1.8273 1.8099 1.7925
47000 47200 47400 47600 47800 48000 48200 48400 48600 48800	47106 47307 47508 47709 47910 48111 48312 48513 48714 48914	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.33960 + 2 1.32679 1.31409 1.30152 1.28907 1.27674 1.26452 1.25243 1.24044 1.22858	3.95584 + 0 3.91800 3.88051 3.84339 3.80662 3.77020 3.73414 3.669841 3.66303 3.62799	1.32208 - 1 1.30944 1.29691 1.28450 1.27221 1.26004 1.24799 1.23605 1.22422 1.21251	1.3447 - 2 1.3319 1.3191 1.3065 1.2940 1.2816 1.2694 1.2572 1.2452	1.7584 - 1 1.7416 1.7249 1.7084 1.6921 1.6759 1.6599 1.6440 1.6282 1.6127
49000 49200 49400 49600 50000 50200 50400 50600 50800	49115 49316 49517 49718 49919 50120 50321 50522 50723 50924	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.21682 + 2 1.20518 1.19365 1.18223 1.17092 1.15972 1.14863 1.13764 1.12676	3.59328 + 0 3.55891 3.52486 3.49114 3.45774 3.42466 3.39190 3.35945 3.32731 3.29548	1.20091 - 1 1.18942 1.17805 1.16678 1.15561 1.14456 1.13361 1.12276 1.11202 1.10138	1.2215 - 2 1.2098 1.1982 1.1868 1.1754 1.1642 1.1530 1.1420 1.1311 1.1202	1.5972 - 1 1.5820 1.5668 1.5518 1.5570 1.5223 1.5077 1.4933 1.4790 1.4649
51000 51200 51400 51600 51800 52000 52200 52400 52600 52800	51125 51326 51527 51728 51929 52130 52331 52532 52733 52934	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.10530 + 2 1.09473 1.08425 1.07388 1.06361 1.05343 1.04336 1.03337 1.02349 1.01370	3.26395 + 0 3.23273 3.20180 3.17117 3.14083 3.11079 3.08103 3.05155 3.02236 2.99344	1.09085 - 1 1.08041 1.07008 1.05984 1.04970 1.03966 1.02971 1.01986 1.01010 1.00044	1.1095 - 2 1.0989 1.0884 1.0780 1.0677 1.0575 1.0473 1.0373 1.0274	1.4509 - 1 1.4370 1.4232 1.4096 1.3961 1.3828 1.3695 1.3564 1.3435 1.3306
53000 53200 53400 53600 53800 54000 54200 54400 54600 54800	53135 53336 53537 53738 53738 53939 54140 54341 54542 54743 54944	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.00400 + 2 9.94394 + 1 9.84881 9.75459 9.66127 9.56884 9.47730 9.38664 9.29684 9.20790	2.96481 + 0 2.93644 2.90835 2.88053 2.85297 2.85268 2.77865 2.77187 2.74535 2.71909	9.90870 - 2 9.81390 9.72002 9.62703 9.53493 9.44371 9.35337 9.26389 9.17526 9.08749	1.0078 - 2 9.9820 - 3 9.8865 9.7919 9.6982 9.6055 9.5136 9.4226 9.3324 9.2431	1,3179 - 1 1,3053 1,2928 1,2804 1,2682 1,2560 1,2440 1,2321 1,2203 1,2087
55000 55200 55400 55600 56000 56200 56400 56400 56800	55145 55347 55548 55749 55950 56151 56352 56553 56754 56955	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	9.11981 + 1 9.03256 8.94615 8.86057 8.77580 8.69185 8.60869 8.52634 8.44477 8.36398	2-69308 + 0 2-66731 2-64180 2-61652 2-59149 2-56670 2-54215 2-51783 2-49374 2-46988	9.00055 - 2 8.91445 8.82917 8.74470 8.66104 8.57819 8.49612 8.41484 8.33434 8.25461	9.1547 - 3 9.0671 8.9804 8.8945 8.8094 8.7251 8.6416 8.5590 8.4771 8.3960	1.1971 - 1 1.1856 1.1743 1.1631 1.1531 1.1519 1.1409 1.1300 1.1192 1.1085 1.0979
57000 57200 57400 57600 57800 58000 58200 58400 58400 58800	57156 57357 57558 57760 57961 58162 58363 58564 58765 58966	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	8.28397 + 1 8.20472 8.12622 8.04848 7.97149 7.89523 7.81970 7.74489 7.67080 7.59741	2.44625 + 0 2.42285 2.39967 2.37672 2.35398 2.33146 2.30916 2.28706 2.26519 2.24351	8.17564 - 2 8.09743 8.01996 7.94324 7.86725 7.79198 7.71744 7.64361 7.57049 7.49806	8.3157 - 3 8.2361 8.1573 8.0793 8.0020 7.9254 7.8496 7.7745 7.7001 7.6265	1.0874 - 1 1.0770 1.0667 1.0565 1.0464 1.0364 1.0364 1.0166 1.0069 9.9726 - 2

TABLE IX.—Continued
GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperature	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t, °C	P, mb	P, in Hg	P _o	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{\rm o}}$
43000 43200 43400 43600 43600 44000 44200 44600 44600 44800	42912 43111 43510 43509 43708 43907 44107 44306 44505 44704	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.63049 + 2 1.61495 1.59957 1.58433 1.55023 1.55428 1.53948 1.52481 1.51029 1.49590	4.81482 + 0 4.76895 4.72352 4.67852 4.63394 4.58980 4.54607 4.50277 4.45987 4.41739	1.60917 - 1 1.59383 1.57865 1.56361 1.54871 1.53396 1.51935 1.50487 1.49054 1.47634	1.6367 - 2 1.66211 1.6057 1.5904 1.5752 1.5602 1.5454 1.5306 1.5161	2.1402 - 1 2.1198 2.0996 2.0796 2.0598 2.0402 2.0208 2.0015 1.9825 1.9636
45000 45200 45400 45800 45800 46000 46200 46400 46600 46800	44903 45102 45301 45501 45700 45899 46098 46297 46496 46695	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.48165 + 2 1.46754 1.45356 1.43971 1.42600 1.41242 1.39896 1.38564 1.37244 1.35937	4.37531 + 0 4.33363 4.29235 4.25147 4.21097 4.17086 4.13114 4.09179 4.05282 4.01422	1.46227 - 1 1.44835 1.43455 1.42088 1.40735 1.39395 1.38067 1.36752 1.35449 1.34159	1.4873 - 2 1.4732 1.4591 1.4452 1.4315 1.4178 1.4043 1.3909 1.3777	1.9449 - 1 1.9263 1.9080 1.8898 1.8718 1.8540 1.8363 1.8188 1.8015
47000 47200 47400 47600 47800 48000 48400 48400 48600 48800	46894 47093 47293 47492 47691 47690 48089 48288 48487 48686	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.34642 + 2 1.33360 1.32990 1.30832 1.29586 1.28352 1.27130 1.25919 1.24720 1.23532	3.97599 + 0 3.93812 3.90061 3.90061 3.86347 3.79023 3.77912 3.771839 3.68298 3.64791	1.32882 - 1 1.31616 1.30363 1.29121 1.27891 1.26674 1.25467 1.24272 1.23089 1.21917	1.3516 - 2 1.3387 1.3260 1.3133 1.3008 1.2884 1.2762 1.2640 1.2520 1.2520	1.7674 - 1 1.7505 1.7339 1.7173 1.7010 1.6848 1.6687 1.6529 1.6371
49000 49200 49400 49400 49800 50000 50200 50400 50600 50800	48885 49084 49283 49482 49681 49880 50079 50278 50478 50677	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.22356 + 2 1.21191 1.20037 1.18894 1.17762 1.16641 1.15530 1.14430 1.13341 1.12262	3.61317 + 0 3.57877 3.54469 3.51094 3.47751 3.44440 3.41161 3.37913 3.34696 3.31509	1.20756 - 1 1.19606 1.18467 1.17339 1.16222 1.15116 1.14020 1.12934 1.11859 1.10794	1.2282 - 2 1.2165 1.2050 1.1935 1.1821 1.1709 1.1597 1.1487 1.1377	1.6061 - 1 1.5908 1.5756 1.5606 1.5458 1.5311 1.5165 1.5021 1.4878 1.4736
51000 51200 51400 51600 51800 52000 52200 52400 52600 52800	50876 51075 51274 51473 51672 51871 52070 52269 52468 52667	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.11193 + 2 1.10135 1.09086 1.09088 1.07019 1.06090 1.04991 1.03992 1.03002 1.02021	3.28353 + 0 3.25227 3.22131 3.19064 3.16027 3.13019 3.10039 3.07088 3.04164 3.01269	1.09739 - 1 1.08694 1.07660 1.06635 1.05620 1.04614 1.03618 1.02632 1.01655 1.00687	1.1162 - 2 1.1056 1.0950 1.09846 1.0743 1.0641 1.0539 1.0340 1.0341	1.4596 - 1 1.4457 1.4319 1.4183 1.4048 1.3914 1.3781 1.3650 1.3520 1.3520
53000 53200 53400 53600 53800 54000 54000 54400 54600 54800	52866 53065 53264 53463 53662 53861 54059 54258 54457 54656	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	1.01050 + 2 1.00089 9.91359 + 1 9.81923 9.72577 9.63321 9.54152 9.45071 9.36077 9.27168	2.98402 + 0 2.95561 2.92748 2.89962 2.87202 2.84468 2.81761 2.79079 2.76423 2.73793	9.97289 - 2 9.87797 9.78395 9.69082 9.59859 9.50723 9.41675 9.32713 9.23836 9.15044	1.0144 - 2 1.0047 9.9515 - 3 9.8568 9.7630 9.6701 9.5780 9.4869 9.3966 9.3072	1.3264 - 1 1.3138 1.3013 1.2889 1.2766 1.2645 1.2525 1.2207 1.2170
55000 55200 55400 55600 55800 56000 56200 56400 56400 56800	54855 55054 55253 55452 55651 55650 56049 56248 56447 56646	\$89.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	9.18345 + 1 9.09605 9.00949 8.92376 8.83884 8.75473 8.67142 8.58891 8.50719 8.42624	2.71187 + 0 2.68606 2.66050 2.63518 2.61011 2.58527 2.56067 2.53630 2.51217 2.48827	9.06336 - 2 8.97711 8.89168 8.80706 8.72326 8.64025 8.55803 8.47660 8.39594 8.31605	9.2186 - 3 9.1309 9.0440 8.9579 8.8727 8.7882 8.7046 8.6218 8.5397 8.4585	1.2055 - 1 1.1940 1.1826 1.1714 1.1602 1.1492 1.1382 1.1274 1.1167
57000 57200 57400 57600 57800 58000 58200 58400 58400 58400	56845 57044 57242 57441 57640 57839 58038 58237 58436 58635	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	8.34606 + 1 8.26665 8.18800 8.11010 8.03294 7.95651 7.88081 7.80584 7.73158 7.65803	2.46459 + 0 2.44114 2.41792 2.37491 2.37213 2.34956 2.32720 2.30506 2.28313 2.26141	8.23693 - 2 8.15855 8.08093 8.00404 7.92789 7.85247 7.777776 7.70376 7.63047 7.55788	8.3780 - 3 8.2983 8.2193 8.11411 8.0637 7.9870 7.9110 7.8357 7.7612 7.6873	1.0955 - 1 1.0851 1.0748 1.0646 1.0544 1.0444 1.0345 1.0246 1.0149
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TABLE IX.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperature	2		Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t, °C	P, mb	P, in Hg	<u>P</u> P °	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{\rm o}}$
59000 59200 59400 59600 59800 60000 60200 60400 60600 60800	59167 59369 59570 59771 59972 60173 60374 60575 60777 60978	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	7.52473 + 1 7.45274 7.38145 7.31083 7.24089 7.17162 7.10301 7.03506 6.96776 6.90110	2.22205 + 0 2.20079 2.17974 2.15889 2.13823 2.11778 2.09752 2.07745 2.05758 2.03789	7.42633 - 2 7.35529 7.28492 7.21523 7.14620 7.07784 7.01013 6.974306 6.87664 6.81086	7.5535 - 3 7.4813 7.4097 7.3388 7.2686 7.1991 7.1302 7.0620 6.9944 6.9275	9.8772 - 2 9.7827 9.6891 9.5964 9.5046 9.4137 9.3237 9.2345 9.1461 9.0586
61000 61200 61400 61600 61800 62000 62200 62400 62600 62800	61179 61380 61581 61783 61984 62185 62386 62587 62788 62990	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	6.83508 + 1 6.76969 6.70493 6.64078 6.57725 6.511433 6.45201 6.39029 6.32915 6.26860	2.01840 + 0 1.99909 1.97996 1.96102 1.94226 1.92368 1.90528 1.88705 1.86900 1.85112	6.74570 - 2 6.68116 6.61725 6.55394 6.49124 6.42914 6.36764 6.30672 6.24639 6.18663	6.8612 - 3 6.7956 6.7306 6.6662 6.6024 6.5393 6.4767 6.4147 6.3534 6.2926	8.9720 - 2 8.8861 8.8011 8.7169 8.6335 8.5559 8.4691 8.3881 8.3079 8.2284
63000 63200 63400 63600 63800 64000 64200 64400 64600 64800	63191 63392 63593 63795 63795 64197 64398 64600 64801 65002	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	6-20864 + 1 6-14924 6-09041 6-03215 5-97444 5-91728 5-86068 5-80461 5-74908 5-69408	1.83341 + 0 1.81587 1.79850 1.78129 1.76425 1.74737 1.73066 1.71410 1.69770 1.68146	6.12745 - 2 6.06883 6.01077 5.95327 5.89631 5.83991 5.78404 5.72870 5.67390	6.2324 - 3 6.1728 6.1137 6.0552 5.9973 5.9399 5.8831 5.8268 5.7711	8.1497 - 2 8.0717 7.9945 7.9980 7.8422 7.7672 7.6929 7.6193 7.5464 7.4742
65000 65200 65400 65600 65800 66000 66400 66600 66800	65203 65404 65606 65807 66008 66210 66411 66612 66813 67015	389.970 389.970 389.970 389.970 390.071 390.180 390.290 390.400 390.509 390.619	-69.700 -69.700 -69.700 -69.700 -69.599 -69.490 -69.380 -69.270 -69.161 -69.051	-56.500 -56.500 -56.500 -56.500 -56.444 -56.383 -56.322 -56.261 -56.200 -56.139	5.63961 + 1 5.58565 5.53222 5.47929 5.42688 5.37499 5.32360 5.27272 5.22234 5.17245	1.66537 + 0 1.64944 1.63366 1.61803 1.60256 1.58723 1.57206 1.55703 1.54216 1.52742	5.56586 - 2 5.51261 5.457887 5.40764 5.35591 5.30470 5.25399 5.20377 5.15405 5.10481	5.6612 - 3 5.6070 5.5534 5.5003 5.4462 5.3926 5.3396 5.2871 5.2351 5.1836	7.4027 - 2 7.3319 7.2618 7.1923 7.1217 7.0516 6.9822 6.9135 6.8455 6.87783
67000 67200 67400 67600 67800 68000 68000 68400 68400 68800	67216 67417 67619 67820 68021 68222 68424 68625 68826 69028	390.729 390.839 390.948 391.058 391.168 391.278 391.387 391.497 391.607	-68.941 -68.831 -68.722 -68.612 -68.502 -68.392 -68.283 -68.163 -67.954	-56.078 -56.017 -55.956 -55.896 -55.835 -55.774 -55.713 -55.5591 -55.591	5.12306 + 1 5.07415 5.02572 4.97777 4.93029 4.88327 4.83672 4.79062 4.74497 4.69978	1.5128 + 0 1.49840 1.48410 1.46994 1.45591 1.4203 1.42828 1.41467 1.40119 1.38784	5.05606 - 2 5.00780 4.96000 4.91268 4.86581 4.81941 4.77347 4.77347 4.72798 4.68293 4.63832	5.1327 - 3 5.0823 5.0323 4.9829 4.9340 4.8856 4.8376 4.7902 4.7432 4.6967	6.7116 - 2 6.6457 6.5804 6.5158 6.4518 6.3885 6.3258 6.2638 6.2024 6.1416
69000 69200 69400 69600 69800 70000 70200 70400 70400 70800	69229 69430 69632 69833 70034 70236 70437 70638 70840 71041	391.826 391.936 392.046 392.155 392.265 392.375 392.485 392.594 392.704	-67.844 -67.734 -67.624 -67.515 -67.405 -67.295 -67.185 -67.076, -66.986	-55.469 -55.408 -55.347 -55.286 -55.164 -55.103 -55.04	4.65502 + 1 4.61070 4.56682 4.52337 4.48034 4.43773 4.39555 4.37555 4.37557 4.31240 4.27144	1.37463 + 0 1.36154 1.34858 1.33575 1.32304 1.31046 1.29800 1.28567 1.27345 1.26135	4.59415 - 2 4.55041 4.50710 4.46422 4.42175 4.37970 4.373807 4.29684 4.25601 4.21558	4.6507 - 3 4.6051 4.5600 4.5154 4.4712 4.4274 4.3841 4.3812 4.2988 4.2567	6.0814 - 2 6.0218 5.9628 5.9044 5.8466 5.7828 5.6767 5.6212 5.5662
71000 71200 71400 71600 71800 72000 72200 72400 72600 72800	71243 71444 71645 71847 72048 72249 72451 72652 72854 73055	392.923 393.033 393.143 393.253 393.362 393.472 393.582 393.692 393.801 393.911	-66.747 -66.637 -66.527 -66.317 -66.308 -66.198 -66.088 -65.978 -65.869 -65.759	-54.859 -54.798 -54.737 -54.615 -54.554 -54.493 -54.472 -54.372	4.23087 + 1 4.19070 4.15093 4.11155 4.07254 4.03392 3.99568 3.95781 3.92031 3.88317	1.24938 + 0 1.23751 1.22577 1.21414 1.20262 1.19122 1.17992 1.16874 1.15767 1.14670	4.17555 - 2 4.13590 4.09665 4.05778 4.01929 3.98117 3.94343 3.90605 3.86904 3.83239	4.2151 - 3 4.1740 4.1332 4.0928 4.0929 4.0133 3.9742 3.9554 3.8970 3.8590	5.5118 - 2 5.4580 5.4047 5.3519 5.2997 5.2479 5.1967 5.1460 5.0959 5.0462
73000 73200 73400 73600 73800 74000 74200 74600 74600 74800	73256 73458 73659 73861 74062 74264 74465 74666 74868 75069	394.021 394.130 394.240 394.350 394.460 394.569 394.679 394.899 394.899	-65.649 -65.540 -65.430 -65.210 -65.210 -65.101 -64.981 -64.682	-54.250 -54.189 -54.067 -54.006 -53.884 -53.823 -53.762 -53.701	3.84640 + 1 3.80998 3.77392 3.73821 3.70285 3.66783 3.63315 3.59881 3.56481 3.53113	1.13584 + 0 1.12509 1.11444 1.10389 1.09345 1.08311 1.07287 1.06273 1.05269 1.04274	3.79610 - 2 3.76016 3.72457 3.68933 3.65443 3.61987 3.58564 3.55175 3.51819 3.48496	3.8214 - 3 3.7842 3.7473 3.7108 3.6747 3.6389 3.6035 3.5685 3.5338 3.4994	4.9970 - 2 4.9483 4.9001 4.8524 4.8052 4.7584 4.7121 4.6663 4.6209 4.5760

TABLE IX.—Continued
GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	т	emperature	2	:	Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P Po	ρ, lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
59000 59200 59400 59600 59800 60000 60200 60400 60600 60800	58834 59032 59231 59430 59629 59828 60027 60226 60424 60623	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	7.58517 + 1 7.51302 7.51302 7.44155 7.37076 7.30065 7.23120 7.16242 7.09429 7.02681 6.95998	2.23990 + 0 2.21859 2.19749 2.17658 2.15588 2.13537 2.11506 2.09494 2.07502 2.05528	7.48599 - 2 7.41477 7.34424 7.27437 7.20518 7.13664 7.06876 7.00152 6.93493 6.86896	7.6142 - 3 7.5418 7.4700 7.3990 7.3286 7.2589 7.1898 7.1214 7.0537 6.9866	9.9566 - 2 9.8618 9.7680 9.6751 9.5831 9.4919 9.4016 9.3122 9.2236 9.1359
61000 61200 61400 61600 61800 62000 62200 62400 62600 62800	60822 61021 61220 61419 61617 61816 62015 62214 62413 62611	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	6.89378 + 1 6.82821 6.76327 6.69895 6.63523 6.57213 6.50963 6.44772 6.38641 6.32567	2.03573 + 0 2.01637 1.99719 1.97820 1.95938 1.94075 1.92229 1.90401 1.88590	6.80363 - 2 6.73892 6.67483 6.61135 6.54847 6.48619 6.42450 6.36341 6.30289 6.24295	6.9202 - 3 6.8543 6.7891 6.7246 6.6606 6.5973 6.5345 6.4724 6.4108 6.3499	9.0490 - 2 8.9629 8.8777 8.7933 8.7096 8.6268 8.5448 8.4635 8.3633
63000 63200 63400 63600 63600 64000 64200 64400 64600 64800	62810 63009 63208 63407 63605 63804 64003 64202 64400 64599	389.970 389.970 389.970 389.970 389.970 389.970 389.970 389.970	-69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700 -69.700	-56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500 -56.500	6.26552 + 1 6.20594 6.14693 6.08848 6.03058 5.97324 5.91644 5.86019 5.80447 5.74928	1.85021 + 0 1.83261 1.81519 1.79793 1.76083 1.76390 1.74713 1.73051 1.71406 1.69776	6.18359 - 2 6.12479 6.06654 6.00886 5.95172 5.89513 5.83908 5.78356 5.72857 5.67410	6.2895 - 3 6.2297 6.1704 6.1118 6.0537 5.9961 5.9391 5.8826 5.8267 5.7713	8.2243 - 2 8.1461 8.0687 7.9919 7.9159 7.8407 7.7661 7.6923 7.6191 7.5467
65000 65200 65400 65600 65800 66000 66200 66400 66800	64798 64997 65196 65394 65593 65792 65991 66189 66388 66587	389.970 389.970 389.970 389.970 389.970 390.066 390.175 390.284 390.393 390.502	-69.700 -69.700 -69.700 -69.700 -69.604 -69.495 -69.386 -69.277 -69.168	-56.500 -56.500 -56.500 -56.500 -56.500 -56.347 -56.326 -56.265	5.69462 + 1 5.64048 5.58685 5.53374 5.48113 5.42903 5.37744 5.32635 5.27577 5.22568	1.68162 + 0 1.66563 1.64980 1.63411 1.61858 1.60319 1.58796 1.57287 1.55793 1.54314	5.62015 - 2 5.56672 5.51380 5.46138 5.40945 5.35804 5.30712 5.25670 5.20678 5.15734	5.7164 - 3 5.6621 5.6082 5.5549 5.5021 5.4485 5.3952 5.3424 5.2902 5.2385	7.4749 - 2 7.4039 7.3335 7.2638 7.1947 7.1246 7.0549 6.9859 6.9176 6.8500
67000 67200 67400 67600 67800 68200 68400 68400 68600 68800	66785 66984 67183 67382 67580 67779 67978 68176 68375	390.611 390.720 390.829 390.938 391.047 391.156 391.265 391.374 391.483 391.592	-69.059 -68.950 -68.841 -68.732 -68.623 -68.514 -68.405 -68.296 -68.187 -68.078	-56.144 -56.083 -56.023 -55.962 -55.902 -55.841 -55.780 -55.720 -55.659	5.17608 + 1 5.12696 5.07833 5.03017 4.98248 4.93526 4.88850 4.88850 4.79634 4.75094	1.52849 + 0 1.51399 1.49963 1.48541 1.47133 1.45738 1.45738 1.42970 1.41636 1.40295	5.10839 - 2 5.05991 5.01192 4.96439 4.91732 4.87072 4.82457 4.77887 4.73362 4.68881	5.1874 - 3 5.1367 5.0866 5.0369 4.9878 4.9391 4.8910 4.8433 4.7961	6.7831 - 2 6.7169 6.6513 6.5864 6.5222 6.4585 6.3956 6.3332 6.2715
69000 69200 69400 69600 69800 70000 70200 70400 70600 70800	68772 68971 69170 69368 69567 69766 69964 70163 70362 70560	391.701 391.810 391.919 392.028 392.137 392.246 392.355 392.464 392.573	-67.969 -67.860 -67.751 -67.642 -67.533 -67.424 -67.315 -67.206 -67.097	-55.538 -55.478 -55.417 -55.356 -55.296 -55.235 -55.175 -55.114 -55.054	4.70598 + 1 4.66146 4.61737 4.57371 4.53048 4.48767 4.44527 4.40329 4.36172 4.32055	1.38967 + 0 1.37653 1.36351 1.35062 1.33785 1.32521 1.31269 1.30029 1.28802 1.27586	4.64444 - 2 4.60050 4.55699 4.51390 4.47124 4.42898 4.38714 4.34571 4.30468 4.26405	4.7031 - 3 4.6573 4.6120 4.5671 4.5227 4.4787 4.4352 4.3921 4.3971	6.1499 - 2 6.0900 6.0308 5.9721 5.9140 5.8565 5.7995 5.7432 5.6874 5.6321
71000 71200 71400 71400 71600 71800 72000 72400 72400 72600 72800	70759 70958 71156 71355 71554 715752 71951 72150 72348 72547	392.791 392.900 393.009 393.118 393.227 393.336 393.445 393.554 393.663 393.772	-66.879 -66.770 -66.661 -66.552 -66.443 -66.334 -66.225 -66.116 -66.007	-54.933 -54.872 -54.812 -54.690 -54.690 -54.569 -54.569 -54.448 -54.388	4.27978 + 1 4.23941 4.19943 4.15985 4.12064 4.08182 4.04337 4.00530 3.96760 3.93026	1.26382 + 0 1.25190 1.24009 1.22840 1.21683 1.20536 1.19401 1.18276 1.17163 1.16060	4.22382 - 2 4.18398 4.1452 4.10545 4.06676 4.02884 3.99050 3.95293 3.91571 3.87886	4.2653 - 3 4.2239 4.1829 4.1823 4.1021 4.0624 4.0230 3.9840 3.9854 3.9072	5.5774 - 2 5.5233 5.4697 5.4166 5.3641 5.3121 5.2006 5.2096 5.1591 5.1092
73000 73200 73400 73600 73600 74000 74200 74400 74600 74600	72745 72944 73143 73341 73540 73738 73937 74135 74334 74533	393.881 393.990 394.208 394.317 394.535 394.535 394.644 394.753	-65.789 -65.680 -65.571 -65.462 -65.353 -65.244 -65.026 -64.808	-54.327 -54.267 -54.206 -54.146 -54.085 -54.025 -53.964 -53.964 -53.843 -53.782	3.89328 + 1 3.85667 3.82041 3.78449 3.74893 3.71372 3.67884 3.64430 3.61010 3.57622	1.14969 + 0 1.13887 1.12817 1.11756 1.10706 1.09666 1.08636 1.07616 1.06606 1.05606	3.84237 - 2 3.80623 3.77045 3.73501 3.69991 3.66515 3.63073 3.59665 3.56289 3.52946	3.869% - 3 3.8319 3.79%8 3.7581 3.7218 3.6858 3.6502 3.61%9 3.5800 3.545%	5.0597 - 2 5.0107 4.9623 4.9142 4.8667 4.8197 4.7731 4.7270 4.6813 4.6361

TABLE IV.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperatur	e		Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P _o	ρ , lb ft ⁻³	<u>ρ</u> ρ _ο
75000 75200 75400 75600 75800 76000 76200 76400 76600 76800	75271 75472 75674 75875 76077 76278 76479 76681 76882 77084	395.118 395.228 395.337 395.447 395.557 395.667 395.776 395.886 395.996	-64.552 -64.422 -64.223 -64.223 -64.113 -64.003 -63.894 -63.784 -63.674 -63.564	-53.640 -53.579 -53.518 -53.457 -53.396 -53.335 -53.274 -53.213 -53.152 -53.091	3.49779 + 1 3.46476 3.43206 3.39967 3.356760 3.33584 3.30439 3.27325 3.24240 3.21186	1.03290 + 0 1.02314 1.01349 1.00392 9.94453 - 1 9.85074 9.75787 9.66589 9.57481 9.48461	3.45205 - 2 3.41945 3.38718 3.35522 3.32357 3.29222 3.26118 3.23044 3.20000 3.16986	3.4654 - 3 3.4318 3.3984 3.3654 3.3327 3.3004 3.2684 3.2367 3.2053 3.1742	4.5315 - 2 4.4675 4.4439 4.4007 4.3580 4.3157 4.2738 4.2324 4.1913 4.1507
77000 77200 77400 77600 77800 78200 78400 78400 78600 78800	77285 77487 77688 77890 78091 78293 78494 78696 78897	396.215 396.325 396.435 396.544 396.654 396.764 396.874 396.983 397.093 397.203	-63.455 -63.345 -63.235 -63.126 -63.016 -62.906 -62.796 -62.796 -62.577 -62.577	-53.030 -52.969 -52.908 -52.848 -52.787 -52.726 -52.665 -52.604 -52.543 -52.482	3.18161 + 1 3.15165 3.12199 3.09261 3.06352 3.03471 3.00617 2.97791 2.94993 2.92222	9.39529 - 1 9.30682 9.21922 9.13248 9.04656 8.96148 8.87722 8.79377 8.71114 8.62931	3.14001 - 2 3.11044 3.08116 3.05217 3.02345 2.99502 2.96686 2.93897 2.91136 2.88400	3.1434 - 3 3.1130 3.0828 3.0530 3.0234 2.9942 2.9652 2.9365 2.9081 2.8800	4.1105 - 2 4.0706 4.0312 3.9922 3.9535 3.9152 3.8774 3.8399 3.8027 3.7660
79000 79200 79400 79600 79800 80000 80200 80400 80600 80800	79300 79502 79703 79905 80107 80308 80510 80711 80913 81114	397.313 397.422 397.532 397.642 397.643 397.861 397.861 398.081 398.190 \$98.300	-62.357 -62.248 -62.138 -62.028 -61.919 -61.809 -61.589 -61.480 -61.370	-52.421 -52.360 -52.299 -52.238 -52.177 -52.116 -52.055 -51.994 -51.933 -51.872	2.89477 + 1 2.86759 2.84067 2.81402 2.78762 2.76147 2.73558 2.70993 2.68454 2.65939	8.54826 - 1 8.46799 8.38851 8.30979 8.23183 8.15462 8.07816 8.00243 7.92744 7.85317	2.85692 - 2 2.83009 2.80353 2.77722 2.75116 2.72536 2.69980 2.67450 2.64943 2.62461	2.8521 - 3 2.8246 2.7973 2.7703 2.7435 2.7171 2.6908 2.6649 2.6392 2.6137	3.7296 - 2 3.6935 3.6578 3.6225 3.5875 3.5529 3.5186 3.4847 3.4847 3.4511
81000 81200 81400 81600 82000 82200 82400 82600 82800	81316 81517 81719 81921 82122 82324 82525 82727 82928 83130	398.410 398.520 398.629 398.739 398.849 398.958 399.068 399.178 399.288 399.397	-61.260 -61.150 -61.041 -60.931 -60.821 -60.712 -60.602 -60.492 -60.382 -60.273	-51.811 -51.750 -51.689 -51.567 -51.506 -51.445 -51.384 -51.324	2.63%48 + 1 2.60981 2.58538 2.56118 2.53722 2.51349 2.48999 2.46671 2.44366 2.42083	7.77962 - 1 7.70677 7.63463 7.56317 7.49241 7.42233 7.35293 7.28419 7.21612 7.14870	2.60003 - 2 2.57568 2.55157 2.52769 2.50404 2.48062 2.45743 2.43445 2.41170 2.38917	2.5885 - 3 2.5636 2.5389 2.5144 2.4902 2.4663 2.4425 2.4490 2.3958 2.3727	3.3849 - 2 3.3522 3.3199 3.2880 3.2563 3.2250 3.1939 3.1632 3.1328 3.1027
83000 83200 83400 83600 83600 84000 84200 84600 84800	83332 83533 83735 83737 84138 84340 84541 84743 84745 85146	399.507 399.617 399.727 399.836 399.946 400.066 400.165 400.275 400.386 400.495	-60.163 -60.053 -59.943 -59.834 -59.724 -59.614 -59.505 -59.395 -59.285 -59.175	-51.202 -51.141 -51.080 -51.019 -50.958 -50.897 -50.836 -50.775 -50.714	2.39821 + 1 2.37582 2.35364 2.333167 2.30992 2.28837 2.26703 2.24590 2.22496 2.20423	7.08192 - 1 7.01579 6.95029 6.88543 6.82119 6.75756 6.69454 6.63213 6.57031 6.50910	2.36685 - 2 2.34475 2.32286 2.30118 2.27971 2.25845 2.23739 2.21653 2.19587 2.17541	2.3499 - 3 2.3273 2.3050 2.2828 2.2609 2.2392 2.2177 2.1964 2.1754 2.1545	3.0728 - 2 3.0433 3.0141 2.9851 2.9564 2.9281 2.9000 2.8721 2.8173
85000 85200 85400 85600 85800 86000 86200 86400 86800	85348 85550 85751 85953 86154 86356 86558 86759 86961 87163	400.604 400.714 400.824 400.934 401.043 401.153 401.263 401.372 401.482 401.592	-59.066 -58.956 -58.846 -58.627 -58.627 -58.517 -58.407 -58.298 -58.188 -58.078	-50.592 -50.531 -50.470 -50.409 -50.348 -50.287 -50.226 -50.165 -50.104 -50.043	2.18370 + 1 2.16336 2.14322 2.12327 2.10352 2.08395 2.06457 2.04538 2.02636 2.00753	6.44846 - 1 6.38841 6.32893 6.27003 6.21169 6.15390 6.09667 6.03099 5.98385 5.92824	2.15514 - 2 2.13507 2.11520 2.09551 2.07601 2.05670 2.03757 2.01863 1.99987	2.1339 - 3 2.1134 2.0932 2.0731 2.0533 2.0336 2.0141 1.9949 1.9758	2.7903 - 2 2.7636 2.7371 2.7109 2.6849 2.6592 2.6538 2.6086 2.5836 2.5589
87000 87200 87400 87600 87800 88000 88200 88400 88600 88800	87364 87566 87768 87970 88171 88373 88575 88776 88978	401.702 401.811 401.921 402.031 402.141 402.250 402.360 402.579 402.579 402.689	-57.968 -57.859 -57.749 -57.529 -57.529 -57.10 -57.200 -57.200 -57.090	- 49.982 - 49.921 - 49.860 - 49.739 - 49.678 - 49.677 - 49.556 - 49.495 - 49.434	1.98888 + 1 1.97041 1.95212 1.93400 1.91605 1.89828 1.88067 1.86323 1.84596 1.82885	5.87317 - 1 5.81862 5.76460 5.71109 5.65809 5.60560 5.55361 5.50212 5.45112 5.40060	1.96288 - 2 1.94465 1.92659 1.90871 1.89099 1.87345 1.85608 1.83887 1.82182 1.80494	1.9382 - 3 1.9197 1.9013 1.8832 1.8852 1.8874 1.8297 1.8123 1.7950	2.5344 - 2 2.5102 2.4862 2.4625 2.4390 2.4157 2.3926 2.3698 2.3472 2.3248
89000 89200 89400 89400 89800 90000 90200 90400 90600 90800	89381 89583 89785 89987 90188 90390 90592 90794 90995 91197	402.799 402.909 403.018 403.128 403.238 403.348 403.457 403.567 403.677	-56.871 -56.761 -56.652 -56.552 -56.432 -56.322 -56.103 -55.993 -55.883	-49.373 -49.312 -49.251 -49.190 -49.100 -49.007 -48.946 -48.885 -48.885	1.81191 + 1 1.79513 1.77850 1.776204 1.74573 1.72958 1.71358 1.69774 1.68204 1.66650	5.35056 - 1 5.30101 5.25192 5.20330 5.15515 5.10745 5.06021 5.01342 4.96707 4.92117	1.78822 - 2 1.77165 1.75525 1.75525 1.73900 1.72291 1.70696 1.69118 1.67554 1.66005 1.64471	1.7609 - 3 1.7441 1.7275 1.7110 1.6948 1.6786 1.6626 1.6468 1.6311	2.3026 - 2 2.2807 2.2589 2.2374 2.2161 2.1950 2.1741 2.1534 2.1329 2.1127

TABLE IX.—Continued
GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperatur	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P°	ρ, lb ft ⁻³	$\frac{\rho}{\rho_{\rm o}}$
75000 75200 75400 75400 75600 76000 76200 76400 76400 76800	74731 74930 75128 75327 75525 75724 75923 76121 76320 76518	394.971 395.079 395.188 395.297 395.515 395.515 395.624 395.733 395.842 395.951	-64.699 -64.591 -64.482 -64.373 -64.264 -64.046 -63.937 -63.828 -63.719	-53.722 -53.661 -53.660 -53.540 -53.480 -53.419 -53.359 -53.298 -53.238 -53.177	3.54268 + 1 3.50945 3.47656 3.44397 3.41171 3.37975 3.34810 3.31676 3.28572 3.25498	1.04615 + 0 1.03634 1.02663 1.01701 1.00748 9.98040 - 1 9.88695 9.79440 9.70274 9.61196	3.49635 - 2 3.46356 3.43109 3.39894 3.36709 3.33555 3.30432 3.27339 3.24276 3.21242	3.5112 - 3 3.4773 3.4438 3.4106 3.3777 3.3451 3.3129 3.2810 3.2494 3.2181	4.5914 - 2 4.5471 4.5032 4.4598 4.4167 4.3342 4.3320 4.2903 4.2490 4.2081
77000 77200 77400 77600 77800 78000 78400 78400 78600 78800	76717 76915 77114 77312 77511 77709 77908 78106 78305 78503	396.060 396.169 396.278 396.387 396.496 396.604 396.713 396.822 396.931 397.040	-63.610 -63.501 -63.392 -63.283 -63.174 -63.066 -62.957 -62.848 -62.739	-53.117 -53.056 -52.996 -52.975 -52.875 -52.814 -52.7593 -52.693 -52.633 -52.572	3.22454 + 1 3.19439 3.16453 3.13496 3.10567 3.07667 3.04795 3.01950 2.99132 2.96342	9.52207 - 1 9.43303 9.34486 9.25754 9.17105 9.08540 9.00058 8.91657 8.83337 8.75098	3.18238 - 2 3.15262 3.12315 3.09397 3.06506 3.03644 3.00809 2.98001 2.95221 2.92467	3.1871 - 3 3.1564 3.1261 3.0960 3.0662 3.0368 3.0076 2.9787 2.9501 2.9218	4.1676 - 2 4.1275 4.0878 4.0484 4.0095 3.9710 3.9328 3.8951 3.8576 3.8576
79000 79200 79400 79600 79800 80000 80200 80400 80400 80800	78702 78900 79099 79297 79496 79694 79893 80091 80290 80488	397.149 397.258 397.367 397.476 397.585 397.693 397.802 397.911 398.020 398.129	-62.521 -62.412 -62.303 -62.194 -62.085 -61.977 -61.868 -61.759 -61.650	-52.512 -52.451 -52.391 -52.370 -52.270 -52.209 -52.149 -52.028 -51.967	2.93578 + 1 2.90841 2.88131 2.85446 2.82787 2.80154 2.77546 2.774963 2.72405 2.69871	8.66936 - 1 8.58854 8.50850 8.42923 8.35071 8.27295 8.19593 8.11966 8.04412 7.96930	2.89739 - 2 2.87038 2.84363 2.81714 2.79089 2.76491 2.73917 2.71368 2.668843 2.66342	2.8937 - 3 2.8660 2.8385 2.8113 2.7843 2.7576 2.7312 2.7051 2.6792 2.6535	3.7839 - 2 3.7476 3.7117 3.6761 3.6060 3.5714 3.5372 3.5034 3.4698
81000 81200 81400 81400 81800 82000 82200 82400 82600 82800	80687 80885 81083 81282 81480 81679 81877 82076 82274 82473	398.238 398.347 398.456 398.565 398.673 398.782 398.891 399.000 399.109 399.218	-61.432 -61.323 -61.214 -61.105 -60.997 -60.888 -60.779 -60.670 -60.561 -60.452	-51.907 -51.846 -51.786 -51.725 -51.665 -51.604 -51.483 -51.423	2.67362 + 1 2.64877 2.62415 2.59977 2.57563 2.55171 2.52803 2.50457 2.48134 2.45832	7.89520 - 1 7.82180 7.74912 7.67713 7.60583 7.53521 7.46527 7.39600 7.32738 7.25943	2.63866 - 2 2.61413 2.58984 2.56578 2.54195 2.51835 2.49497 2.47182 2.44889 2.42618	2.6281 - 3 2.6030 2.5781 2.5534 2.5290 2.5049 2.4809 2.4573 2.4338 2.4106	3.4366 - 2 3.4037 3.3712 3.3370 3.3070 3.2754 3.2442 3.2132 3.1625 3.1521
83000 83200 83400 83600 83600 84000 84200 84400 84600 84800	82671 82869 83068 83266 83465 83663 83861 84060 84258 84457	399.327 399.435 399.544 399.653 399.762 399.871 399.980 400.089 400.197 400.306	-60.343 -60.235 -60.126 -60.017 -59.908 -59.799 -59.690 -59.813 -59.473 -59.364	-51.302 -51.241 -51.181 -51.120 -51.060 -50.939 -50.879 -50.818 -50.758	2.43553 + 1 2.41296 2.39060 2.36846 2.34652 2.32480 2.30328 2.28197 2.26087 2.23996	7.19213 - 1 7.12547 7.05944 6.99405 6.92928 6.86513 6.80159 6.73866 6.67633 6.61459	2.40368 - 2 2.38141 2.35934 2.35934 2.33749 2.31584 2.29440 2.27316 2.25213 2.23130 2.21067	2.3876 - 3 2.3648 2.3422 2.3199 2.2978 2.2759 2.2542 2.2328 2.2115 2.1905	3.1221 - 2 3.0923 3.0628 3.0336 3.0047 2.9771 2.9477 2.9196 2.8918 2.8643
85000 85200 85400 85600 85800 86400 86400 86400 86600	84655 84853 85052 85250 85447 85647 85643 86242 86440	400.415 400.524 400.633 400.745 400.850 400.959 401.068 401.177 401.286 401.395	-59.255 -59.146 -59.037 -58.928 -58.820 -58.711 -58.602 -58.493 -58.275	-50.697 -50.637 -50.576 -50.455 -50.395 -50.334 -50.274 -50.213	2.21925 + 1 2.19874 2.17843 2.15831 2.13838 2.11864 2.09909 2.07972 2.06054 2.04154	6.55344 - 1 6.49288 6.43289 6.37347 6.31462 6.25633 6.19860 6.14141 6.08477 6.02866	2.19023 - 2 2.16999 2.14994 2.13008 2.11041 2.09093 2.07164 2.05252 2.03359 2.01484	2.1696 - 3 2.1490 2.1286 2.1083 2.0883 2.0685 2.0488 2.0294 2.0101 1.9910	2.8371 - 2 2.8101 2.7834 2.7569 2.7307 2.7048 2.6791 2.6536 2.6285 2.6035
87000 87200 87400 87600 87600 88200 88200 88400 88400 88800	86639 86837 87035 87234 87432 87630 87829 88027 88225 88423	401.503 401.612 401.721 401.830 401.939 402.047 402.156 402.265 402.374 402.483	-58.167 -58.058 -57.949 -57.731 -57.623 -57.514 -57.405 -57.296 -57.187	-50.093 -50.032 -49.972 -49.851 -49.790 -49.730 -49.669 -49.609 -49.549	2.02272 + 1 2.00408 1.98562 1.96733 1.94922 1.93128 1.91350 1.89590 1.87847 1.86120	5.97309 - 1 5.91805 5.86353 5.80953 5.75604 5.70306 5.65058 5.59860 5.54711 5.49611	1.99627 - 2 1.97787 1.95965 1.94161 1.92373 1.90602 1.88848 1.87111 1.85390 1.83686	1.9721 - 3 1.9534 1.9349 1.9166 1.8984 1.8804 1.8626 1.8450 1.8275	2.5788 - 2 2.5584 2.55801 2.5062 2.4824 2.4856 2.4126 2.4356 2.4126 2.3897 2.3671
89000 89200 89400 89400 90000 90200 90400 90400 90800	88622 88820 89018 89217 89415 89613 89812 90010 90208 90406	402.591 402.700 402.809 402.918 403.027 403.135 403.244 403.353 403.462 403.571	-57.079 -56.970 -56.861 -56.752 -56.643 -56.535 -56.426 -56.317 -56.208 -56.099	-49.488 -49.428 -49.367 -49.246 -49.186 -49.125 -49.065 -49.005	1.84409 + 1 1.82715 1.81036 1.79374 1.77727 1.76096 1.74480 1.72880 1.71294 1.69724	5.44560 - 1 5.39556 5.34599 5.29690 5.24827 5.20011 5.15239 5.10513 5.05832 5.01194	1.81998 - 2 1.80325 1.78669 1.77028 1.75403 1.73793 1.72198 1.70619 1.69054 1.67504	1.7931 - 3 1.7762 1.7594 1.7427 1.7263 1.7100 1.6938 1.6778 1.6620 1.6463	2.3447 - 2 2.3226 2.3006 2.2789 2.2573 2.2360 2.2149 2.1940 2.1733 2.1528

TABLE I▼.—Continued

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	т	emperature	e		Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P _o	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{\circ}}$
91000 91200 91400 91600 91800 92000 92200 92400 92600 92800	91399 91601 91802 92004 92206 92408 92609 92811 93013 93215	403.896 404.006 404.116 404.225 404.335 404.445 404.555 404.564 404.774 404.884	-55.774 -55.664 -55.554 -55.335 -55.225 -55.115 -55.006 -54.896 -54.786	-48.763 -48.702 -48.641 -48.519 -48.458 -48.397 -48.3276 -48.215	1.65110 + 1 1.63585 1.62074 1.60578 1.59096 1.57628 1.56174 1.54734 1.53307 1.51894	4.87570 - 1 4.83066 4.78605 4.74187 4.69810 4.65475 4.61182 4.56928 4.52716 4.48543	1.62951 - 2 1.61446 1.59955 1.58478 1.57015 1.55567 1.54132 1.52710 1.51302 1.49908	1.6003 - 3 1.5851 1.5700 1.5551 1.5403 1.5257 1.5112 1.4969 1.4827	2.0926 - 2 2.0727 2.0530 2.0335 2.0142 1.9950 1.9761 1.9573 1.9388 1.9204
93000 93200 93400 93600 93800 94000 94200 94400 94600 94800	93417 93618 93820 94022 94224 9426 94627 94627 94829 95031 95233	404.994 405.103 405.213 405.323 405.542 405.542 405.652 405.762 405.871 405.981	-54.676 -54.567 -54.457 -54.238 -54.128 -54.018 -53.708 -53.799 -53.689	-48.154 -48.093 -48.032 -47.971 -47.910 -47.849 -47.727 -47.666 -47.605	1.50494 + 1 1.49108 1.47735 1.46375 1.45027 1.43693 1.42371 1.41061 1.39764 1.38479	4.44410 - 1 4.40316 4.36261 4.32244 4.28265 4.28324 8.20421 4.16554 4.12724 4.08930	1-48526 - 2 1-47158 1-45803 1-44460 1-43131 1-41814 1-40509 1-39217 1-37937	1.4547 - 3 1.4409 1.4272 1.4137 1.4003 1.3870 1.3739 1.3609 1.3480 1.3353	1.9022 - 2 1.8841 1.8663 1.8486 1.8311 1.8137 1.7966 1.7796 1.7627
95000 95200 95400 95600 95800 96000 96200 96400 96600 96800	95435 95637 95838 96040 96242 96444 96646 96848 97050 97251	406.091 406.201 406.310 406.530 406.530 406.749 406.749 406.969 407.078	-53.579 -53.469 -53.360 -53.250 -53.140 -53.031 -52.921 -52.811 -52.701 -52.592	-47.544 -47.483 -47.422 -47.361 -47.300 -47.239 -47.178 -47.176 -47.056 -46.995	1.37207 + 1 1.35946 1.34698 1.33461 1.32236 1.31022 1.29820 1.26629 1.27450 1.26281	4.05172 - 1 4.01449 3.97762 3.94110 3.90492 3.86908 3.86908 3.83358 3.79842 3.76358 3.72908	1.35413 - 2 1.34169 1.32936 1.31716 1.30506 1.29309 1.28122 1.26947 1.25783 1.24630	1.3226 - 3 1.3101 1.2978 1.2855 1.2733 1.2613 1.2494 1.2376 1.2259	1.7295 - 2 1.7132 1.6970 1.6809 1.6651 1.6493 1.6338 1.6183 1.6031
97000 97200 97400 97400 97800 98000 98200 98400 98600 98800	97453 97655 97657 98059 98261 98463 98665 98867 99068 99270	407.188 407.298 407.408 407.517 407.527 407.737 407.846 407.956 408.066 408.176	-52.482 -52.372 -52.262 -52.153 -52.043 -51.933 -51.824 -51.714 -51.604 -51.494	-46.934 -46.873 -46.812 -46.752 -46.691 -46.630 -46.569 -46.508 -46.547 -46.386	1.25124 + 1 1.23977 1.22842 1.21717 1.20602 1.19498 1.18405 1.17322 1.16249 1.15186	3.69490 - 1 3.66105 3.62751 3.59429 3.56138 3.52879 3.49650 3.46451 3.43283 3.40144	1.23488 - 2 1.22356 1.21235 1.20125 1.19025 1.17936 1.16857 1.15788 1.14729 1.13680	1.2029 - 3 1.1916 1.1803 1.1692 1.1582 1.1473 1.1365 1.1258 1.1152 1.1047	1.5730 - 2 1.55834 1.5289 1.5145 1.5145 1.5002 1.4861 1.4721 1.4583
99000 99200 99400 99600 100000 100200 100400 100600 100800	99472 99674 99876 100078 100280 100482 100684 101088 101088	408.285 408.395 408.505 408.615 408.724 408.834 408.944 409.053 409.273	-51.385 -51.275 -51.165 -51.055 -50.946 -50.836 -50.726 -50.617 -50.507	-46.325 -46.264 -46.203 -46.142 -46.020 -45.959 -45.837 -45.776	1.14133 + 1 1.13090 1.12057 1.11034 1.10020 1.09015 1.08020 1.07035 1.06059 1.05092	3.37035 - 1 3.33955 3.30904 3.27882 3.24888 3.21988 3.18984 3.16074 3.13191 3.10335	1.12641 - 2 1.11611 1.10592 1.09582 1.08581 1.07590 1.06608 1.05635 1.04672	1.0943 - 3 1.0840 1.0738 1.0637 1.0537 1.0438 1.0340 1.0243 1.0147	1.4309 - 2 1.4175 1.4042 1.3910 1.3779 1.3649 1.3521 1.3394 1.3269 1.3144
101000 101200 101400 101600 101800 102000 102200 102400 102600 102800	101492 101694 101895 102097 102299 102501 102703 102905 103107 103309	409.383 409.492 409.602 409.712 409.822 409.931 410.041 410.151 410.260 410.370	-50.287 -50.178 -50.068 -49.958 -49.848 -49.739 -49.629 -49.519 -49.410	-45.715 -45.654 -45.593 -45.532 -45.471 -45.410 -45.349 -45.208 -45.228 -45.167	1.04133 + 1 1.03184 1.012244 1.01313 1.00390 9.44763 + 0 9.85709 9.76741 9.67855 9.59053	3.07506 - 1 3.04703 3.01927 2.99177 2.96453 2.93754 2.91080 2.88431 2.85807 2.83208	1.02772 - 2 1.01835 1.00907 9.99881 - 3 9.90776 9.81755 9.72819 9.63968 9.55199 9.46511	9.9575 - 4 9.8641 9.7716 9.6800 9.5893 9.4995 9.4105 9.3224 9.2351 9.1486	1.3021 - 2 1.2899 1.2778 1.2658 1.2539 1.2422 1.2305 1.2190 1.2076 1.1963
103000 103200 103400 103600 103800 104000 104400 104600 104800	103511 103713 103915 104117 104319 104521 104723 104925 105127 105329	410.480 410.590 410.699 410.809 410.919 411.029 411.138 411.248 411.358	-49.190 -49.080 -48.971 -48.861 -48.751 -48.641 -48.532 -48.422 -48.312 -48.203	- 45.106 - 45.045 - 44.984 - 44.923 - 44.801 - 44.679 - 44.618 - 44.557	9.50333 + 0 9.41695 9.33138 9.24660 9.16262 9.07943 8.99700 8.91535 8.83447 8.75434	2.80633 - 1 2.78082 2.75555 2.73052 2.70572 2.68115 2.65681 2.63270 2.60882 2.58516	9.37906 - 3 9.29380 9.20935 9.12569 9.04280 8.96070 8.87935 8.79877 8.71895 8.63986	9.0630 ~ 4 8.9783 8.8943 8.8111 8.7288 8.6472 8.5664 8.4864 8.4864 8.4072	1.1851 - 2 1.1740 1.1630 1.1522 1.1414 1.1307 1.1202 1.1097 1.0993
105000 105500 106000 106500 107500 107500 108500 108500 109500	105531 106036 106542 107047 107552 108057 108562 109067 109573 110078	411.590 412.358 413.126 413.894 414.663 415.431 416.199 416.967 417.735 418.503	-48.080 -47.312 -46.544 -45.776 -45.007 -44.239 -43.471 -42.703 -41.935	-44.489 -44.062 -43.635 -43.209 -42.782 -42.355 -41.928 -41.502 -41.675 -40.648	8.67495 + 0 8.47984 8.28947 8.10371 7.92245 7.74557 7.57295 7.40449 7.24007 7.07960	2.56171 - 1 2.50410 2.44788 2.39303 2.33950 2.28727 2.23629 2.18654 2.13799 2.09060	8.56151 - 3 8.36895 8.18107 7.99774 7.81885 7.64428 7.47392 7.30766 7.14540 6.98702	8.2507 - 4 8.0501 7.8548 7.6645 7.4792 7.2987 7.1229 6.9516 6.7847 6.6222	1.0789 - 2 1.0527 1.0271 1.0022 9.7800 - 3 9.5440 9.3141 9.0901 8.8719 8.6593

Altit	ude	ī	emperature	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _P °	ρ, 1b ft ⁻³	$\frac{\rho}{\rho_{\rm o}}$
91000 91200 91400 91600 91600 92000 92200 92400 92600 92800	90605 90803 91001 91199 91398 91596 91794 91992 92191 92389	403.679 403.788 403.897 404.006 404.114 404.223 404.332 404.441 404.549 404.658	-55.991 -55.882 -55.773 -55.664 -55.556 -55.338 -55.229 -55.121 -55.012	- 48.884 - 48.823 - 48.763 - 48.762 - 48.642 - 48.582 - 48.521 - 48.400 - 48.340	1.68168 + 1 1.665101 1.65501 1.63590 1.62092 1.60609 1.59139 1.57684 1.56242	4.96601 - 1 4.92051 4.87544 4.83080 4.78658 4.74277 4.69938 4.65640 4.61382 4.57165	1.65969 - 2 1.64449 1.62942 1.61450 1.59972 1.58508 1.57058 1.55622 1.54 199 1.52789	1.6308 - 3 1.6154 1.6002 1.5851 1.5702 1.5554 1.5407 1.5262 1.5119 1.4977	2.1325 - 2 2.1124 2.0924 2.0727 2.0532 2.0339 2.0147 1.9958 1.9770
93000 93200 93400 93600 93800 94000 94400 94600 94800	92587 92785 92984 93182 93380 93578 93776 93975 94173 94371	404.767 404.876 404.984 405.093 405.202 405.311 405.419 405.528 405.637 405.746	-54.903 -54.794 -54.686 -54.577 -54.468 -54.359 -54.251 -54.033 -53.924	-48.279 -48.219 -48.159 -48.038 -47.977 -47.977 -47.976 -47.736	1.53399 + 1 1.51997 1.50609 1.49234 1.47872 1.47872 1.45186 1.43862 1.42550 1.41251	4.52987 - 1 4.48848 4.44749 4.40688 4.36665 4.32681 4.28733 4.24823 4.20950 4.17113	1.51393 - 2 1.50010 1.48640 1.47283 1.45938 1.44606 1.43287 1.41980 1.40686 1.39403	1.4836 - 3 1.4696 1.4558 1.4421 1.4286 1.4152 1.4019 1.3887 1.3757	1.9400 - 2 1.9217 1.9037 1.8858 1.8680 1.8505 1.8331 1.8159 1.7989
95000 95200 95400 95600 95800 96000 96200 96400 96600 96800	94569 94767 94966 95164 95362 95560 95758 95956 96155 96353	405.854 405.963 406.072 406.181 406.289 406.398 406.507 406.616 406.724 406.833	-53.816 -53.707 -53.598 -53.489 -53.381 -53.272 -53.163 -53.054 -52.946 -52.837	-47.675 -47.615 -47.555 -47.494 -47.434 -47.373 -47.373 -47.252 -47.192 -47.132	1.39963 + 1 1.38688 1.37425 1.36174 1.34935 1.33707 1.32491 1.31286 1.30092 1.28910	4.13312 - 1 4.07546 4.05817 4.02122 3.98462 3.94836 3.91244 3.87686 3.8162 3.84162	1.38133 - 2 1.36875 1.35628 1.35628 1.34393 1.33170 1.31958 1.30758 1.29569 1.28391 1.27224	1.3500 - 3 1.3373 1.3248 1.3124 1.3001 1.2879 1.2759 1.2639 1.2521 1.2404	1.7653 - 2 1.7488 1.7324 1.7161 1.7001 1.6884 1.6684 1.6528 1.6373
97000 97200 97400 97400 97600 98000 98200 98400 98600 98800	96551 96749 96947 97145 97343 97542 97740 97938 98136 98334	406.942 407.050 407.159 407.268 407.377 407.485 407.594 407.703 407.920	-52.728 -52.620 -52.511 -52.402 -52.293 -52.185 -52.076 -51.967 -51.859 -51.750	-47.071 -47.011 -46.951 -46.890 -46.769 -46.769 -46.588 -46.528	1.27738 + 1 1.26578 1.255428 1.254290 1.23162 1.22044 1.20937 1.19840 1.18754 1.17678	3.77211 - 1 3.73784 3.70390 3.67027 3.63696 3.60396 3.57127 3.53888 3.50680 3.47502	1.26068 - 2 1.24923 1.23788 1.22664 1.21551 1.20448 1.19356 1.18273 1.17201 1.16139	1.2288 - 3 1.2173 1.2059 1.1947 1.1835 1.1725 1.1615 1.1507 1.1399 1.1293	1.6068 - 2 1.5918 1.5769 1.5622 1.5476 1.5331 1.5188 1.5086 1.4906
99000 99200 99400 99600 99800 100000 100200 100400 100600	98532 98730 98928 99127 99325 99523 99721 99919 100117	408.029 408.137 408.246 408.355 408.572 408.572 408.790 408.898 409.007	-51.641 -51.533 -51.424 -51.315 -51.207 -51.098 -50.989 -50.880 -50.772 -50.663	-46.467 -46.407 -46.347 -46.286 -46.226 -46.165 -46.105 -46.045 -45.984	1.16611 + 1 1.15555 1.14509 1.13472 1.12445 1.11428 1.10420 1.09421 1.08432 1.07452	3.44353 - 1 3.41234 3.38144 3.35083 3.32050 3.29046 3.26070 3.23121 3.20200 3.17306	1.15086 - 2 1.14044 1.13011 1.11988 1.10975 1.09971 1.08976 1.07990 1.07014 1.06047	1.1188 - 3 1.1083 1.0980 1.0878 1.0776 1.0676 1.0577 1.0478 1.0381	1.4629 - 2 1.4493 1.4358 1.4224 1.4092 1.3960 1.3830 1.3702 1.3574
101000 101200 101400 101600 101800 102000 102200 102400 102600 102800	100513 100711 100909 101107 101305 101504 101702 101900 102098 102296	409.116 409.224 409.333 409.442 409.659 409.659 409.768 409.876 409.985	-50.554 -50.446 -50.337 -50.228 -50.120 -50.011 -49.902 -49.794 -49.685	-45.864 -45.803 -45.743 -45.622 -45.562 -45.501 -45.381 -45.381	1.06481 + 1 1.05520 1.04567 1.03623 1.02688 1.01761 1.00843 9.99340 + 0 9.90332 9.81407	3.14439 - 1 3.11599 3.08786 3.05998 3.05236 3.00501 2.97790 2.95105 2.92445 2.89809	1.05089 - 2 1.04140 1.03199 1.02268 1.01345 1.00430 9.95246 - 3 9.86272 9.77381 9.68574	1.0189 - 3 1.0094 1.0090 9.9073 - 4 9.8152 9.7241 9.6338 9.5444 9.4559 9.3682	1.3323 - 2 1.3199 1.3077 1.2955 1.2835 1.2716 1.2597 1.2481 1.2365 1.2250
103000 103200 103400 103600 103600 104000 104200 104400 104600 104800	102494 102692 102890 103088 103286 103484 103682 103880 104078	410.202 410.311 410.419 410.528 410.637 410.745 410.854 410.963 411.071	-49.468 -49.359 -49.251 -49.142 -49.033 -48.925 -48.8707 -48.599 -48.490	-45.260 -45.200 -45.139 -45.018 -44.958 -44.837 -44.717	9.72565 + 0 9.63806 9.55127 9.46529 9.38010 9.29572 9.21211 9.12928 9.04722 8.96591	2.87198 - 1 2.84612 2.82049 2.79510 2.74592 2.74502 2.72033 2.69587 2.67164 2.64763	9.59847 - 3 9.51202 9.42637 9.34151 9.25744 9.17416 9.09165 9.00990 8.92891 8.84867	9.2813 - 4 9.1953 9.1101 9.0257 8.9421 8.8593 8.7773 8.6961 8.6156 8.5360	1.2137 - 2 1.2024 1.1913 1.1802 1.1693 1.1585 1.1477 1.1371 1.1266
105000 105500 106000 106500 107000 107000 108000 108500 109500	104474 104969 105464 105959 106454 106949 107444 107938 108433 108928	411.289 411.560 412.303 413.063 413.823 414.584 415.344 416.104 416.864 417.624	-48.381 -48.110 -47.367 -46.607 -45.847 -45.086 -43.566 -42.806 -42.046	- 44.656 - 44.505 - 44.093 - 43.670 - 43.248 - 42.826 - 42.403 - 41.981 - 41.559 - 41.136	8.88537 + 0 8.68724 8.49377 8.30497 8.12070 7.94086 7.76533 7.59400 7.42676 7.26350	2.62385 - 1 2.56534 2.50821 2.45246 2.39804 2.39494 2.29310 2.24251 2.19312 2.14491	8.76918 - 3 8.57364 8.38270 8.19636 8.01451 7.83702 7.66379 7.49469 7.32964 7.16852	8.4570 - 4 8.2630 8.0644 7.8707 7.6819 7.4980 7.3188 7.1443 6.9742 6.8085	1.1059 - 2 1.0805 1.0545 1.0292 1.0045 9.8046 - 3 9.5703 9.3421 9.1197 8.9030

TABLE IV.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperature	е		Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P°	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
110000 110500 111000 111500 112000 112500 113500 113500 114500	110583 111089 111594 112099 112605 113110 113616 114121 114627 115132	419.271 420.039 420.807 421.575 422.343 423.112 423.880 424.648 425.416 426.184	-40.399 -39.631 -38.863 -38.095 -37.327 -36.558 -35.790 -35.022 -34.254 -33.486	-40.222 -39.795 -39.368 -38.911 -38.088 -37.661 -37.235 -36.808 -36.381	6.92297 + 0 6.77008 6.62084 6.47515 6.33292 6.19407 6.05850 5.92614 5.79691 5.67071	2.04435 - 1 1.99920 1.95513 1.91211 1.87011 1.82911 1.78908 1.74999 1.71183 1.67456	6.83244 - 3 6.68155 6.53426 6.39047 6.25011 6.11307 5.97928 5.84865 5.72110 5.59656	6.4638 - 4 6.3095 6.1591 6.0126 5.8699 5.7307 5.5952 5.4630 5.3342 5.2087	8.4522 - 3 8.2505 8.0539 7.8623 7.6756 7.4937 7.3164 7.1436 6.9752 6.8111
115000 115500 116000 116500 117000 117500 118500 118500 119000	115638 116143 116649 117155 117660 118166 118672 119177 119683 120189	426.952 427.720 428.488 429.256 430.024 430.793 431.561 432.329 433.097 433.865	-32.718 -31.950 -31.182 -30.414 -29.646 -28.877 -28.109 -27.341 -26.573 -25.805	-35.954 -35.528 -35.101 -34.674 -34.248 -33.821 -33.821 -32.967 -32.541 -32.114	5.54749 + 0 5.42715 5.30964 5.19487 5.08278 4.97331 4.86638 4.76193 4.65991 4.56024	1.63817 - 1 1.60264 1.56793 1.53404 1.50094 1.46862 1.43704 1.40620 1.37607 1.37607	5.47494 - 3 5.35618 5.24020 5.12694 5.01631 4.90827 4.80274 4.69966 4.59897 4.50061	5.0864 - 4 4.9671 4.8508 4.7375 4.6270 4.5193 4.4142 4.3118 4.2119 4.1146	6.6511 - 3 6.4951 6.3431 6.1949 6.0504 5.9095 5.7722 5.6382 5.5077 5.3803
120000 120500 121000 121500 122500 122500 123500 123500 124000	120695 121200 121706 122212 122718 123224 123730 124236 124742 125248	434.633 435.401 436.169 436.937 437.705 438.474 439.242 440.010 440.778 441.546	-25.037 -24.269 -23.501 -22.733 -21.965 -21.196 -20.428 -19.660 -18.892 -18.124	-31.687 -31.260 -30.834 -30.407 -29.980 -29.554 -29.127 -28.273 -27.847	4.46288 + 0 4.36776 4.27484 4.18405 4.09534 4.00866 3.92396 3.84120 3.76032 3.68128	1.31789 - 1 1.28980 1.26236 1.23555 1.20935 1.18376 1.15875 1.13431 1.11042 1.08708	4.40452 - 3 4.31065 4.21894 4.12933 4.04178 3.95624 3.87265 3.779097 3.71115 3.63314	4.0196 - 4 3.9270 3.8367 3.7486 3.6627 3.5789 3.4971 3.4174 3.3396 3.2637	5.2561 - 3 5.1350 5.0169 4.9018 4.7894 4.6798 4.5729 4.4687 4.3670 4.2677
125000 125500 126000 126500 127500 127500 128500 128500 129000	125754 126260 126766 127272 127778 128284 128791 129297 129803 130309	442.314 443.082 443.850 444.618 445.154 446.154 446.923 447.691 448.459 449.227	-17.356 -16.588 -15.820 -15.052 -14.284 -13.516 -12.747 -11.979 -11.211 -10.443	-27.420 -26.993 -26.567 -26.140 -25.713 -25.286 -24.860 -24.433 -24.006 -23.580	3.60404 + 0 3.52855 3.45476 3.38264 3.31215 3.24324 3.17589 3.11004 3.04567 2.98273	1.06427 - 1 1.04198 1.02019 9.98894 - 2 9.78077 9.57729 9.37838 9.18394 8.99385 8.80801	3.55691 - 3 3.48240 3.40958 3.33841 3.26884 3.20083 3.13435 3.06937 3.00584 2.94373	3.1897 - 4 3.1175 3.0470 2.9782 2.9711 2.8457 2.7818 2.7194 2.6586 2.5992	4.1709 - 3 4.0765 3.9843 3.8944 3.8067 3.7211 3.6375 3.5560 3.4764 3.3988
130000 130500 131000 131500 132500 132500 133500 133500 134000	130816 131322 131828 132335 132841 133347 133854 134360 134867 135373	449.995 450.763 451.531 452.299 453.067 453.835 454.604 455.372 456.908	-9.675 -8.907 -8.139 -7.371 -6.603 -5.835 -5.066 -4.298 -3.530 -2.762	-23.153 -22.726 -22.299 -21.873 -21.446 -21.019 -20.592 -20.166 -19.739 -19.312	2.92120 + 0 2.86105 2.80223 2.74471 2.68848 2.63348 2.57970 2.52711 2.47568 2.42537	8.62631 - 2 8.44867 8.27498 8.10514 7.93907 7.77667 7.61786 7.46256 7.31067 7.16213	2.88300 - 3 2.82363 2.76558 2.70882 2.65332 2.59905 2.54597 2.49407 2.44330 2.39366	2.5412 - 4 2.4847 2.4294 2.3755 2.3229 2.2715 2.2214 2.1724 2.1246 2.0780	3.3230 - 3 3.2490 3.1768 3.1063 3.0375 2.9703 2.9048 2.8408 2.77762 2.7172
135000 135500 136000 136500 137500 137500 138500 138500 139500	135880 136893 136893 137399 137906 138413 138919 139426 139933 140440	457.676 458.444 459.212 459.980 461.516 462.284 463.053 463.821 464.589	-1.994 -1.226 -0.458 0.310 1.078 1.846 2.614 3.383 4.151	-18.886 -18.459 -18.032 -17.605 -17.179 -16.752 -16.325 -15.899 -15.472	2.37618 + 0 2.32805 2.28099 2.23494 2.18991 2.14585 2.10275 2.06059 2.01934 1.97898	7.01684 - 2 6.87474 6.73575 6.59979 6.46680 6.33670 6.20942 6.08491 5.96310 5.84392	2.34510 - 3 2.29761 2.25116 2.20572 2.16127 2.11779 2.07525 2.03364 1.99293	2.0324 - 4 1.9879 1.9445 1.9020 1.8606 1.8201 1.7820 1.7420 1.7043	2.6576 - 3 2.5994 2.5426 2.4872 2.4330 2.3881 2.3284 2.2779 2.2286 2.1805
140000 140500 141000 141500 142000 142500 143500 143500 144500	140946 141453 141960 142467 142974 143480 143987 1445901 145508	465.357 466.125 466.893 467.661 468.429 469.197 469.965 470.734 471.502 472.270	5.687 6.455 7.223 7.991 8.759 9.527 10.205 11.064 11.832 12.600	-14.618 -14.192 -13.765 -13.338 -12.912 -12.485 -12.058 -11.631 -11.205 -10.778	1.93949 + 0 1.90085 1.86305 1.82606 1.78986 1.75443 1.71977 1.68584 1.65263 1.62014	5.72731 - 2 5.61322 5.50158 5.39234 5.28544 5.18084 5.07846 4.97828 4.88023 4.78426	1.91413 - 3 1.87600 1.83869 1.80218 1.76645 1.73149 1.69728 1.66379 1.633102 1.59895	1.6315 - 4 1.5964 1.5621 1.5285 1.4958 1.4038 1.4325 1.4019 1.3721	2.1334 - 3 2.0875 2.00426 1.9987 1.9559 1.9141 1.8732 1.8332 1.7942
145000 145500 146000 146500 147500 147500 148500 148500 149500	146015 146522 147029 147537 148044 148551 149058 149565 150072	473.038 473.806 474.574 475.342 476.110 476.878 477.646 478.414 479.183 479.951	13.368 14.136 14.904 15.672 16.440 17.208 17.796 18.745 19.513 20.281	-10.351 -9.924 -9.498 -9.071 -8.644 -8.218 -7.791 -7.364 -6.937	1.58833 + 0 1.55720 1.552672 1.49689 1.46769 1.43911 1.41113 1.38373 1.35691 1.33065	4.69033 - 2 4.59840 4.50841 4.42033 4.33410 4.24969 4.16705 4.08616 4.00695 3.92941	1.56756 - 3 1.53683 1.50676 1.47732 1.44650 1.42029 1.39267 1.36564 1.33917 1.31325	1.3144 - 4 1.2866 1.2593 1.2327 1.2068 1.1813 1.1565 1.1322 1.1085	1.7188 - 3 1.6824 1.6468 1.6120 1.5780 1.5448 1.5123 1.4805 1.4495

TABLE $\overline{\mathbf{M}}$.—Continued GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	Τ	emperature	e .		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	<u>P</u> P°	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{\circ}}$
110000 110500 111000 111500 112500 112500 113500 114000 114500	109423 109918 110412 110907 111402 111896 112391 112886 113380 113875	418.384 419.144 419.904 420.664 421.424 422.184 422.944 423.704 424.464 425.223	-41.286 -40.526 -39.766 -39.006 -38.246 -37.486 -36.726 -35.206 -35.206	-40.714 -40.292 -39.870 +39.025 -38.603 -38.181 -37.759 -37.337 -36.915	7.10413 + 0 6.94854 6.79664 6.64833 6.50353 6.36213 6.22407 6.08924 5.95758 5.82900	2.09785 - 1 2.05190 2.00705 1.96325 1.92049 1.87874 1.83797 1.79815 1.75927 1.72130	7.01123 - 3 6.85768 6.70776 6.56139 6.41848 6.27894 6.14268 6.00962 5.87967 5.75277	6.6470 - 4 6.4896 6.3363 6.1868 6.0411 5.8992 5.7608 5.6259 5.4944 5.3662	8.6918 - 3 8.4860 8.2855 8.0901 7.8996 7.7139 7.5330 7.3566 7.1846 7.0170
115000 115500 116000 116500 117500 117500 118500 119500	114369 114864 115358 115853 116347 1163442 117336 117830 118325 118819	425.983 426.743 427.502 428.262 429.022 429.781 430.541 431.300 432.060 432.819	-33.687 -32.927 -32.168 -31.408 -30.648 -29.889 -29.129 -28.370 -27.610 -26.851	-36.493 -36.071 -35.649 -35.227 -34.805 -34.383 -33.931 -33.539 -33.117 -32.695	5.70342 + 0 5.58077 5.46097 5.34395 5.22965 5.11800 5.00892 4.90237 4.79826 4.69655	1.68422 - 1 1.64800 1.61262 1.57807 1.54432 1.51134 1.47913 1.44767 1.41693 1.38689	5.62884 - 3 5.50779 5.38956 5.27407 5.16127 5.05107 4.94342 4.83826 4.73551 4.63513	5.2412 - 4 5.1194 5.0006 4.8848 4.7718 4.6617 4.5543 4.4495 4.3474	6.8536 - 3 6.6943 6.5389 6.3875 6.2598 6.2598 5.9553 5.8184 5.6848 5.5545
120000 120500 121500 121500 122500 122500 123500 124000 124500	119313 119808 120302 120796 121290 121785 122279 1222773 123267	433.578 434.338 435.097 435.856 436.615 437.374 438.134 438.893 439.652 440.411	-26.092 -25.332 -24.573 -23.814 -23.055 -22.296 -21.536 -20.777 -20.018 -19.259	-32.273 -31.851 -31.430 -31.586 -30.586 -30.164 -29.742 -29.321 -28.899 -28.477	4.59717 + 0 4.50006 4.40518 4.31246 4.22185 4.13331 4.04677 3.96219 3.87953 3.79874	1.35754 - 1 1.32887 1.30085 1.27347 1.24671 1.22056 1.19501 1.17004 1.14562 1.12177	4.53705 - 3 4.44122 4.34757 4.25607 4.16664 4.07926 3.99385 3.91038 3.82880 3.74906	4.1506 - 4 4.0558 3.9634 3.8732 3.7852 3.6994 3.6157 3.5340 3.4543 3.3765	5.4275 - 3 5.3035 5.1827 5.0647 4.9497 4.8375 4.7280 4.6212 4.5169 4.4153
125000 125500 126000 126500 127500 127500 128500 128500 129500	124255 124749 125243 125737 126231 126725 127219 127713 128207 128701	441.929 442.688 443.447 444.205 444.964 445.723 446.482 447.240 447.999	-18.500 -17.741 -16.982 -16.223 -15.465 -14.706 -13.947 -13.188 -12.430 -11.671	-28.056 -27.634 -27.212 -26.791 -26.369 -25.948 -25.5105 -24.683 -24.262	3.71976 + 0 3.64256 3.56710 3.49333 3.42121 3.35070 3.28176 3.21436 3.14846 3.08402	1.09844 - 1 1.07565 1.05336 1.03158 1.01028 9.89461 - 2 9.69104 9.49201 9.29740 9.10710	3.67112 - 3 3.59493 3.52045 3.44765 3.37647 3.30688 3.23885 3.17233 3.10729 3.04369	3.3006 - 4 3.2266 3.1543 3.0838 3.0150 2.9478 2.8823 2.8183 2.7558 2.6948	4.3160 - 3 4.2192 4.1247 4.0325 3.9825 3.8546 3.7689 3.6852 3.6036 3.5238
130000 130500 131000 131500 132500 132500 133500 133500 134500	129195 129688 130182 130676 131170 131663 132157 132651 132651 133638	448.758 449.516 450.275 451.033 451.792 452.550 453.309 454.067 454.825 455.584	-10.912 -10.154 -9.395 -8.637 -7.878 -7.120 -6.361 -5.603 -4.845 -4.086	-23.840 -23.419 -22.997 -22.555 -21.733 -21.312 -20.891 -20.469 -20.048	3.02101 + 0 2.95939 2.89913 2.84020 2.78257 2.72620 2.67107 2.61714 2.56439 2.51280	8.92103 - 2 8.73907 8.56113 8.38710 8.21691 8.05046 7.88765 7.72841 7.57265 7.42029	2.98150 - 3 2.92069 2.86122 2.80306 2.74618 2.69055 2.63614 2.58292 2.53086 2.47994	2.6353 - 4 2.5772 2.5205 2.4651 2.4110 2.3582 2.3066 2.2563 2.2071 2.1591	3.4460 - 3 3.3700 3.2958 3.2234 3.1527 3.0837 3.0162 2.9504 2.8881 2.8233
135000 135500 136000 136500 137500 137500 138500 139500	134132 134625 135119 135612 136106 136599 137093 137586 138080 138573	456.342 457.100 457.858 458.617 459.375 460.133 460.891 461.649 462.407 463.165	-3.328 -2.570 -1.812 -1.053 -0.295 0.463 1.221 1.979 2.737 3.495	-19.627 -19.205 -18.784 -18.363 -17.942 -17.521 -17.100 -16.678 -16.257 -15.836	2.46233 + 0 2.41295 2.36465 2.31739 2.27116 2.22592 2.18166 2.13836 2.09598 2.05451	7.27125 - 2 7.12544 6.98280 6.84326 6.70673 6.57315 6.44245 6.31456 6.18942 6.06697	2.43013i - 3 2.38140 2.33373 2.28709 2.24146 2.19682 2.15313 2.11039 2.06857 2.02764	2.1122 - 4 2.0665 2.0217 1.9781 1.9354 1.8937 1.8530 1.8133 1.7744	2.7620 - 3 2.7022 2.6437 2.5866 2.5308 2.4763 2.4231 2.3711 2.3203 2.2706
140000 140500 141000 141500 142500 142500 143500 144500	139066 139560 140053 140546 140546 141040 141533 142026 142519 143012 143506	463.923 464.680 465.438 466.954 466.954 467.712 468.469 469.227 469.985 470.742	4.253 5.010 5.768 6.526 7.284 8.042 8.779 9.557 10.315 11.072	-15.415 -14.994 -14.573 -14.152 -13.731 -13.310 -12.889 -12.468 -12.047 -11.627	2.01393 + 0 1.97422 1.93536 1.89732 1.86009 1.82366 1.78799 1.75308 1.71801 1.68546	5.94714 - 2 5.82987 5.71510 5.60278 5.49285 5.38526 5.27994 5.17686 5.07595 4.97718	1.98760 - 3 1.94840 1.91005 1.67251 1.83577 1.79981 1.76461 1.73016 1.69644	1.6994 - 4 1.6631 1.6278 1.5932 1.5594 1.5264 1.4941 1.4625 1.4317	2.2222 - 3 2.1748 2.1285 2.0833 2.0391 1.9959 1.9537 1.9125 1.8722 1.8328
145000 145500 146000 146500 147000 147500 148500 148500 149500	143999 144492 144985 145478 145971 146464 146957 147450 147943	471.500 472.257 473.015 473.772 474.529 475.287 476.044 476.801 477.559 478.316	11.830 12.587 13.345 14.102 14.859 15.617 16.374 17.131 17.889 18.646	-11.206 -10.785 -10.364 -9.943 -9.523 -9.102 -8.681 -8.260 -7.840	1.65272 + 0 1.62066 1.58928 1.55856 1.52847 1.49902 1.47018 1.44194 1.41429	4.88048 - 2 4.78582 4.69314 4.60241 4.51358 4.42601 4.341144 4.25806 4.17640 4.09645	1.63111 - 3 1.59947 1.56850 1.53818 1.50849 1.47942 1.45096 1.42309 1.39580	1.3722 - 4 1.3434 1.3153 1.2878 1.2609 1.2346 1.2090 1.1839 1.1593 1.1353	1.7943 - 3 1.7567 1.7199 1.6839 1.6488 1.6145 1.5809 1.5481 1.5160

TABLE IV.—Continued

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperatur	e		Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P°	ρ , lb ft ⁻³	ρ/ρο
150000 150500 151000 151500 152500 152500 153000 153500 153500	151087 151594 152101 152609 153116 153623 154131 154638 155146 155653	480.719 481.487 482.255 483.023 483.791 484.559 485.327 486.095 486.864 487.170	21.049 21.817 22.585 23.353 24.121 24.889 25.657 26.425 27.194 27.500	-6.084 -5.657 -5.231 -4.804 -4.377 -3.950 -3.524 -3.097 -2.670 -2.500	1.30494 + 0 1.27977 1.25512 1.23098 1.20735 1.18420 1.16154 1.13934 1.11760 1.09631	3.85349 - 2 3.77915 3.70636 3.63509 3.56529 3.49695 3.43002 3.36447 3.30028 3.23739	1.28788 - 3 1.26303 1.23871 1.21488 1.19156 1.16872 1.14635 1.12444 1.10299 1.08197	1.0626 - 4 1.0405 1.0188 9.9764 - 5 9.7693 9.5668 9.3689 9.1753 8.9861 8.8093	1.3896 - 3 1.3606 1.3322 1.3045 1.2775 1.2510 1.2251 1.1998 1.1750 1.1519
155000 155500 156000 156500 157500 157500 158500 158500 159500	156161 156668 157176 157683 158191 158699 159206 159714 160222 160729	487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170	27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500	-2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500	1.07542 + 0 1.05493 1.03483 1.01511 - 1 9.95770 - 1 9.76779 9.58186 9.39930 9.22021 9.04454	3.17571 - 2 3.11520 3.05584 2.99762 2.94051 2.88448 2.82952 2.77561 2.72273 2.67085	1.06135 - 3 1.04113 1.02130 1.00184 9.82749 - 4 9.64024 9.45656 9.27639 9.09964 8.92627	8.6414 - 5 8.4768 8.3153 8.1569 8.0014 7.8490 7.6994 7.5527 7.4088 7.2677	1.1300 - 3 1.1085 1.0873 1.0866 1.0463 1.0264 1.0068 9.8762 - 4 9.6880 9.5034
160000 160500 161000 161500 162500 162500 163500 164500	161237 161745 162253 162761 163268 163776 164284 164792 165300 165808	487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170	27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500	-2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500	8.87222 - 1 8.70317 8.53735 8.37469 8.21512 8.05860 7.90506 7.75444 7.60670 7.46177	2.61996 - 2 2.57005 2.52108 2.47304 2.42592 2.37970 2.33436 2.28989 2.24626 2.20346	8.75620 - 4 8.58936 8.42571 8.26517 8.10770 7.95322 7.80169 7.65304 7.50723 7.36419	7.1292 ~ 5 6.9934 6.8601 6.7294 6.6012 6.4754 6.3521 6.2310 6.1123 5.9959	9.3224 - 4 9.1447 8.9705 8.7996 8.6319 8.4675 8.3061 8.1479 7.9926 7.8404
165000 165500 166000 166500 167500 167500 168000 168000 169500	166316 166824 167332 167840 168348 168856 169364 169873 170381 170889	487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170	27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500	-2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500	7.31960 - 1 7.18014 7.04333 6.90913 6.77749 6.64836 6.52169 6.39743 6.27554 6.15597	2.16148 - 2 2.12029 2.07989 2.04027 2.00139 1.96326 1.92585 1.88916 1.85317 1.81786	7.22388 - 4 7.08624 6.95123 6.61879 6.68887 6.56142 6.43641 6.31377 6.19348 6.07547	5.8816 - 5 5.7696 5.6596 5.5518 5.4460 5.3422 5.2405 5.1406 5.0427	7.6910 - 4 7.5444 7.4007 7.2597 7.1214 6.9857 6.8526 6.7220 6.5939 6.4683
170000 170500 171500 171500 172500 172500 173500 173500 174500	171397 171906 172414 172922 173431 173939 174447 174956 175464 175973	487.170 487.170 486.735 486.186 485.638 485.089 484.541 483.992 483.443 482.895	27.500 27.500 27.065 26.516 25.968 25.419 24.871 24.322 23.773 23.225	-2.500 -2.500 -2.742 -3.046 -3.351 -3.656 -3.966 -4.266 -4.570 -4.875	6.03868 - 1 5.92363 5.81072 5.69985 5.59097 5.48405 5.37906 5.27597 5.17473 5.07533	1.78322 - 2 1.74925 1.71591 1.68316 1.65101 1.61944 1.55899 1.52810 1.49874	5.95972 - 4 5.84617 5.73474 5.62531 5.51786 5.41234 5.30872 5.20697 5.10706 5.00896	4.8523 - 5 4.7599 4.6733 4.5893 4.5068 4.4256 4.3458 4.2673 4.1902 4.1144	6.3451 - 4 6.2242 6.1110 6.0012 5.8932 5.7870 5.6827 5.5801 5.4792 5.3801
175000 175500 176500 176500 177500 177500 178500 178500 179500	176481 176990 177498 178007 178515 179024 179533 180041 180550 181059	482.346 481.797 481.249 480.700 480.151 479.603 479.054 478.506 477.957 477.408	22.676 22.127 21.579 21.530 20.481 19.933 19.384 18.836 18.287	-5.180 -5.485 -5.790 -6.094 -6.399 -6.704 -7.009 -7.314 -7.618	4.97772 - 1 4.88189 4.78779 4.69541 4.60470 4.51565 4.42822 4.34238 4.25812 4.17539	1.46992 - 2 1.44162 1.41384 1.38655 1.35977 1.33347 1.30765 1.28231 1.25742 1.23299	4.91263 - 4 4.81805 4.72519 4.63401 4.54449 4.45660 4.37031 4.28560 4.20243 4.12079	4.0398 - 5 3.9666 3.8945 3.8237 3.7542 3.6358 3.6185 3.5525 3.4875 3.4237	5.2826 - 4 5.1868 5.0926 5.0920 4.9091 4.8196 4.7317 4.6453 4.5604 4.4769
180000 180500 181000 181500 182500 182500 183000 183000 184500	181567 182076 182585 183094 183602 184111 184620 185129 185638 186147	476.860 476.311 475.762 475.214 474.665 474.116 473.568 473.019 472.470 471.922	17.190 16.641 16.092 15.544 14.995 14.446 13.898 13.349 12.800	-8.228 -8.533 -8.838 -9.142 -9.447 -9.752 -10.0567 -10.362 -10.666	4.09418 - 1 4.01446 3.93620 3.85938 3.78397 3.70995 3.63730 3.56598 3.49599	1.20901 - 2 1.18547 1.16236 1.13967 1.11741 1.09555 1.07409 1.05503 1.03236 1.01208	4.04064 - 4 3.96196 3.88472 3.80891 3.73449 3.66144 3.58973 3.51935 3.45027 3.38247	3.3610 - 5 3.2993 3.2387 3.1792 3.1207 3.0032 3.0067 2.9511 2.8966 2.8430	4.3949 - 4 4.3143 4.2351 4.1572 4.0807 4.0055 3.9316 3.8590 3.7175
185000 185500 186000 186500 187500 187500 188000 188500 189500	186656 187165 187674 188183 188692 189201 189710 190220 190729 191238	471.373 470.825 470.276 469.727 469.179 468.630 468.081 467.533 466.984	11.703 11.155 10.606 10.057 9.509 8.960 8.411 7.863 7.314	-11.276 -11.581 -11.886 -12.190 -12.495 -12.800 -13.105 -13.410 -13.714 -14.019	3.35986 - 1 3.29368 3.22873 3.16499 3.10243 3.04104 2.98080 2.92168 2.86366 2.80673	9.92165 - 3 9.72623 9.53444 9.34620 9.16148 8.98019 8.80229 8.62770 8.45638 8.28827	3.31592 - 4 3.25061 3.18651 3.12360 3.06186 3.00127 2.94182 2.88347 2.82621 2.77003	2.7903 - 5 2.7385 2.6876 2.6876 2.5885 2.5803 2.4929 2.4463 2.4005 2.3556	3.6486 - 4 3.5809 3.5144 3.4491 3.3848 3.3217 3.2598 3.1989 3.1390 3.0802

Altit	ude	Ţ	emperature	2	-	Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _P °	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{\rm o}}$
150000 150500 151000 151500 152000 152500 153500 153500 154500	148929 149422 149914 150407 150900 151393 151886 152378 152871 153364	479.073 479.830 480.587 481.344 482.101 482.858 483.615 484.372 485.129	19.403 20.160 20.917 21.674 22.431 23.188 23.945 24.702 25.459 26.216	-6.998 -6.578 -6.157 -5.316 -5.316 -4.895 -4.475 -4.054 -3.634 -3.213	1.36070 + 0 1.33473 1.30930 1.28440 1.26000 1.23611 1.21271 1.18979 1.16734 1.14535	4.01815 - 2 3.94146 3.86637 3.79282 3.72079 3.65024 3.58114 3.51345 3.44715 3.38220	1.34291 - 3 1.31728 1.29218 1.26760 1.24353 1.21995 1.19685 1.17423 1.15207 1.13037	1.1119 - 4 1.0889 1.0665 1.0446 1.0231 1.0021 9.8163 - 5 9.6157 9.4195 9.2277	1.4539 - 3 1.4239 1.3046 1.3659 1.3379 1.3104 1.2836 1.2574 1.2317
155000 155500 156000 156500 157000 157500 158500 158500 159500	153856 154849 154842 155334 155827 156319 156812 157304 157797 158289	486.643 487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170	26.973 27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500	-2.793 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500	1.12380 + 0 1.10269 1.08199 1.06168 1.04175 1.02219 1.00300 9.84179 - 1 9.65707 9.47582	3.31858 - 2 3.25625 3.19512 3.13513 3.07628 3.07628 3.01853 2.96187 2.90628 2.85173 2.79821	1.10910 - 3 1.08827 1.06784 1.04779 1.02812 1.00883 9.89889 - 4 9.71309 9.53078 9.35191	9.0400 - 5 8.8606 8.6943 8.5310 8.3709 8.2138 8.0596 7.9083 7.7599	1.1821 - 3 1.1586 1.1369 1.1155 1.0946 1.0741 1.0539 1.0341 1.0147 9.9566 - 4
160000 160500 161000 161500 162500 162500 163500 164500 164500	158782 159274 159766 160259 160751 161243 161736 162228 162720 163212	487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170	27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500	-2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500	9.29799 - 1 9.12350 8.955229 8.78431 8.61948 8.45776 8.29907 8.14337 7.99060 7.84071	2.74569 - 2 2.69417 2.64361 2.59400 2.54533 2.49757 2.45071 2.40474 2.35962 2.31536	9.17640 - 4 9.00419 8.83523 8.66944 8.50677 8.34716 8.19055 8.03688 7.88611 7.73817	7.4713 - 5 7.3311 7.1936 7.0586 6.9261 6.7962 6.6687 6.5436 6.4208 6.3003	9.7697 - 4 9.5864 9.4065 9.2300 9.0568 8.8869 8.7201 8.5565 8.3960 8.2385
165000 165500 166000 166500 167000 167500 168000 168500 169000	163705 164197 164689 165181 165673 166165 166657 167149 167641 168133	487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170 487.170	27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500 27.500	-2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500 -2.500	7.69363 - 1 7.54931 7.40771 7.20878 7.13245 6.99869 6.86744 6.73866 6.61231 6.48832	2.27193 - 2 2.22931 2.18750 2.14647 2.10621 2.06671 2.02796 1.98993 1.95261 1.91600	7.59302 - 4 7.45059 7.31085 7.17373 7.03918 6.90717 6.77764 6.65054 6.52584 6.40348	6.1822 - 5 6.0662 5.9524 5.8408 5.7312 5.6238 5.5183 5.4148 5.3133 5.2136	8.0840 - 4 7.9323 7.7836 7.6376 7.4943 7.3538 7.3538 7.2159 7.0806 6.9478 6.8175
170000 170500 171000 171500 172500 172500 173500 173500 174500	168625 169117 169609 70101 170593 171085 171577 172068 172560 173052	487.170 487.170 487.170 487.170 487.170 486.642 486.102 485.563 485.023 484.484	27.500 27.500 27.500 27.500 27.500 26.972 26.432 25.893 25.353 24.814	-2.500 -2.500 -2.500 -2.500 -2.500 -2.793 -3.093 -3.493 -3.693	6.36667 - 1 6.24730 6.13018 6.01526 5.90250 5.79179 5.68305 5.57624 5.47133 5.36828	1.88008 - 2 1.84483 1.81024 1.77631 1.774301 1.71032 1.67821 1.64666 1.61568 1.58525	6.28341 - 4 6.16561 6.05002 5.93660 5.82531 5.71606 5.60874 5.50333 5.39978 5.29809	5.1159 - 5 5.0200 4.9259 4.8335 4.7429 4.6590 4.5766 6.4956 4.4956 4.4159 4.3376	6.6897 - 4 6.5643 6.4412 6.3205 6.2020 6.0923 5.9845 5.8786 5.77744
175000 175500 176000 176500 177500 177500 178000 178500 179500	173544 174035 174527 175019 175510 176002 176493 176985 177477 177968	483.944 483.405 482.865 482.326 481.786 481.247 480.707 480.168 479.629	24.274 23.735 23.195 22.656 22.116 21.577 21.037 20.498 19.959 19.419	-4.292 -4.592 -4.892 -5.191 -5.791 -6.090 -6.390 -6.699	5.26707 - 1 5.16766 5.07002 4.97413 4.87995 4.787%5 4.607%0 4.51979 4.43376	1.55537 - 2 1.52601 1.49718 1.46886 1.44105 1.41373 1.38691 1.36057 1.33469 1.30929	5.19819 - 4 5.10008 5.00372 4.90908 4.81613 4.72485 4.63520 4.54715 4.46069	4.2605 - 5 4.1848 4.1103 4.0371 3.9651 3.8943 3.8247 3.7562 3.6890 3.6228	5.5712 - 4 5.4721 5.3748 5.2790 5.1848 5.0923 5.0013 4.9118 4.8238 4.7373
180000 180500 181500 181500 182500 182500 183500 184500 184500	178460 178951 179442 179934 180425 180917 181408 181899 182391 182882	478.550 478.011 477.471 476.932 476.393 475.854 475.315 474.776 474.236 473.697	18.880 18.341 17.801 17.262 16.723 16.184 15.645 15.106 14.566	-7.289 -7.589 -7.888 -8.188 -8.487 -8.787 -9.086 -9.386	4.34927 - 1 4.26631 4.18484 4.10484 4.02628 3.94915 3.87341 3.77904 3.72603 3.65434	1.28434 - 2 1.25984 1.23578 1.21216 1.18896 1.16618 1.14382 1.12186 1.10030	4.29240 - 4 4.21052 4.13011 4.05116 3.97363 3.89751 3.82276 3.74936 3.67730 3.60655	3.5578 - 5 3.4939 3.4310 3.3692 3.3085 3.2488 3.1901 3.1324 3.0757 3.0199	4.6523 - 4 4.5687 4.4865 4.4057 4.3263 4.2282 4.1714 4.0960 4.0218 3.9490
185000 185500 186000 186500 187000 187500 188000 188500 188500 189500	183373 183864 184356 184847 185338 185829 186320 186811 187302 187793	473.158 472.619 472.080 471.541 471.002 470.463 469.925 469.386 468.847 468.308	13.488 12.949 12.410 11.871 11.332 10.793 10.255 9.716 9.177 8.638	-10.284 -10.584 -10.883 -11.183 -11.482 -11.781 -12.081 -12.380 -12.680 -12.979	3.58395 - 1 3.51484 3.44700 3.38039 3.31499 3.25080 3.18777 3.12590 3.06517 3.00555	1.05834 - 2 1.03793 1.01790 9.98228 - 3 9.78917 9.59960 9.41349 9.23079 9.05145 8.87539	3.53708 - 4 3.46888 3.40192 3.33618 3.27165 3.20829 3.14609 3.08503 3.02509 2.96625	2.9651 - 5 2.9113 2.8583 2.8063 2.7552 2.7049 2.6555 2.6070 2.5593 2.5124	3.8773 - 4 3.8069 3.7377 3.6696 3.6028 3.5370 3.4724 3.4089 3.3466 3.2852
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TABLE IX.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperature	9		Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P _o	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
190000 190500 191000 191500 192500 192500 193500 194500 194500	191747 192256 192766 192766 193275 193784 194294 194803 195312 195822 196331	465.887 465.338 464.790 464.241 463.692 463.144 462.595 462.046 461.498	6.217 5.668 5.120 4.571 4.022 3.474 2.925 2.376 1.828 1.279	-14.324 -14.629 -14.934 -15.543 -15.848 -16.153 -16.456 -17.067	2.75087 - 1 2.696227 2.58949 2.53771 2.48691 2.43706 2.38816 2.34018 2.29311	8-12331 - 3 7-96144 7-80261 7-64677 7-49386 7-34384 7-19664 7-05223 6-91054 6-77155	2.71489 - 4 2.66080 2.60771 2.55563 2.55439 2.45439 2.40519 2.35693 2.30958 2.26312	2.3114 - 5 2.2680 2.2254 2.1835 2.1424 2.1020 2.0623 2.0233 1.9850 1.9474	3.0225 - 4 2.9657 2.9100 2.8553 2.8015 2.7486 2.6967 2.6458 2.5957 2.5465
195000 195500 196000 196500 197000 197500 198500 198500 199500	196841 197350 197860 198369 198879 199388 199898 200408 200917 201427	460.400 459.852 459.303 458.754 458.206 457.657 457.109 456.560 456.011 455.463	0.730 0.182 -0.367 -0.916 -1.464 -2.013 -2.561 -3.110 -3.659 -4.207	-17.372 -17.677 -17.982 -18.286 -18.591 -18.896 -19.201 -19.506 -19.810 -20.115	2.24693 - 1 2.20163 2.15719 2.11359 2.07083 2.02888 1.98773 1.94737 1.90778 1.86895	6.63518 - 3 6.50141 6.37017 6.24144 6.11515 5.99128 5.86977 5.75056 5.63367 5.51901	2.21755 - 4 2.17284 2.17284 2.1898 2.08595 2.04375 2.04375 1.96174 1.92190 1.88283 1.84451	1.9105 - 5 1.8742 1.8386 1.8036 1.7692 1.7354 1.7023 1.6697 1.6377 1.6377	2.4982 - 4 2.4508 2.4042 2.3584 2.3134 2.2693 2.2259 2.1834 2.1415 2.1005
200000 200500 201000 201500 202500 202500 203500 204500 204500	201937 202447 202956 203466 203976 204486 204996 205506 206015 206525	454.914 453.961 452.863 451.766 450.669 449.572 448.474 447.377 446.280 445.182	-4.756 -5.709 -6.807 -7.904 -9.001 -10.098 -11.196 -12.293 -13.390 -14.488	-20.420 -20.950 -21.559 -22.169 -22.778 -23.388 -23.998 -24.607 -25.217 -25.826	1.83086 - 1 1.79350 1.75681 1.72078 1.68541 1.65068 1.61659 1.558312 1.55026	5.40654 - 3 5.29620 5.08147 4.97702 4.87446 4.77378 4.67494 4.57791	1.80692 - 4 1.77004 1.77383 1.69828 1.66337 1.62910 1.59545 1.56241 1.52999	1.5755 - 5 1.5466 1.5186 1.4911 1.4640 1.4373 1.4111 1.3853 1.3598 1.3348	2.0602 - 4 2.0224 1.9858 1.9498 1.9144 1.8795 1.8452 1.8114 1.7782
20500C 205500 206500 206500 207500 207500 208500 208500 209500	207035 207545 208055 208565 209075 209586 210096 210606 211116 211626	444.085 442.988 441.891 440.793 439.696 438.599 437.502 436.404 435.307 434.210	-15.585 -16.682 -17.779 -18.877 -19.974 -21.071 -22.168 -23.266 -24.363 -25.460	-26.436 -27.046 -27.655 -28.265 -28.265 -28.265 -29.484 -30.094 -30.703 -31.313	1.48634 - 1 1.45527 1.42477 1.39483 1.36545 1.33662 1.336833 1.28057 1.25333 1.22660	4.38917 - 3 4.29740 4.20733 4.11893 4.03218 3.94704 3.86350 3.78152 3.70107 3.62215	1.46691 - 4 1.43624 1.40614 1.37659 1.34760 1.31914 1.29122 1.26382 1.23694 1.21056	1.3102 - 5 1.2860 1.2622 1.2387 1.2157 1.1930 1.1707 1.1487 1.1271 1.1058	1.7133 - 4 1.6816 1.6505 1.6198 1.5896 1.5600 1.5308 1.5021 1.4738 1.4460
210000 210500 211000 211500 212000 212500 213500 214000 214500	212136 212647 213157 213157 213667 214177 214688 215198 215709 216729	433.112 432.015 430.918 429.821 428.723 427.626 426.529 425.431 424.334 423.237	-26.558 -27.655 -28.752 -29.849 -30.947 -32.044 -33.141 -34.239 -35.336 -36.433	-32.532 -33.142 -33.751 -34.361 -34.970 -35.580 -36.190 -36.799 -37.409 -38.018	1.20038 - 1 1.17465 1.1465 1.12465 1.10037 1.07654 1.05318 1.03026 1.00778 9.85742 - 2	3.54471 - 3 3.46874 3.39421 3.32110 3.24938 3.17903 3.11003 3.04235 2.97598 2.91089	1.18468 - 4 1.15929 1.13438 1.10994 1.08598 1.06246 1.03940 1.01679 9.94605 - 5 9.72852	1.0849 - 5 1.0644 1.0442 1.0243 1.0047 9.8550 - 6 9.6659 9.4800 9.2971 9.1174	1.4187 - 4 1.3918 1.3654 1.3394 1.3138 1.2887 1.2639 1.22396 1.2157
215000 215500 216500 216500 217500 217500 218500 218500 219500	217240 217750 218261 218771 219282 219793 220303 220814 221324 221835	422.140 421.042 419.945 418.848 417.750 416.653 415.556 414.459 413.361 412.264	-37.530 -38.628 -39.725 -40.822 -41.920 -43.017 -44.114 -45.211 -46.309 -47.406	-38.628 -39.238 -39.847 -40.457 -41.676 -42.286 -42.895 -43.505 -44.114	9.64127 - 2 9.42932 9.22149 9.01771 8.81792 8.62205 8.43004 8.24180 8.05729 7.87643	2.84707 - 3 2.78448 2.72310 2.66293 2.66393 2.54609 2.48939 2.48939 2.43380 2.37932 2.37591	9.51519 - 5 9.30601 9.10090 8.89979 8.70261 8.50931 8.31980 8.13403 7.95193 7.77344	8.9406 - 6 8.7669 8.5960 8.4281 8.2630 8.1008 7.9413 7.7845 7.6304 7.4790	1.1691 - 4 1.1464 1.1240 1.1021 1.0805 1.0593 1.0384 1.0179 9.9778 - 5
220000 220500 221000 221500 222500 223500 223500 223500 224000	222346 222857 223367 223878 224389 224900 225411 225921 226432 226943	411.167 410.070 408.972 407.875 406.778 405.680 404.583 403.486 402.389 401.291	-48.503 -49.600 -50.698 -51.795 -52.892 -53.990 -55.087 -56.184 -57.281	-44.724 -45.334 -45.943 -46.553 -47.162 -47.772 -48.382 -48.991 -49.601 -50.210	7.69917 - 2 7.52544 7.35518 7.18833 7.02483 6.86463 6.70765 6.55386 6.40319 6.25558	2-27356 - 3 2-22226 2-17198 2-12271 2-07443 2-02712 1-98077 1-93535 1-89086 1-84727	7.59849 - 5 7.42703 7.25900 7.09433 6.93297 6.77486 6.61994 6.46816 6.31945 6.17378	7.3302 - 6 7.1840 7.0403 6.8991 6.7603 6.6240 6.4901 6.3586 6.2293 6.1024	9.5852 - 5 9.3940 9.2061 9.0214 8.8400 8.6618 8.4867 8.3146 8.11456 7.9796
225000 225500 226000 226500 227500 227500 228000 228500 229000 229500	227454 227965 228476 228987 229498 230009 230521 231032 231543 232054	400.194 399.097 397.999 396.902 395.805 394.708 393.610 392.513 391.416 390.318	-59.476 -60.573 -61.671 -62.768 -63.865 -64.962 -66.060 -67.157 -68.254 -69.352	-50.820 -51.430 -52.039 -52.649 -53.258 -53.868 -54.478 -55.087 -55.697	6.11098 - 2 5.96935 5.83062 5.69475 5.56167 5.43136 5.30374 5.17878 5.05643 4.93664	1.80457 - 3 1.76275 1.72178 1.68166 1.64236 1.60388 1.56619 1.52929 1.49316	6.03107 - 5 5.89129 5.75437 5.62028 5.48895 5.36033 5.23439 5.11106 4.99031 4.87208	5.9777 - 6 5.8552 5.7349 5.6167 5.5007 5.3867 5.2748 5.1649 5.0570 4.9511	7.8166 - 5 7.6564 7.4991 7.3446 7.1928 7.0438 6.8975 6.7538 6.6127 6.4742

Altit	ude	Т	emperature	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P _o	ρ , lb ft ⁻³	<u> </u>
190000 190500 191000 191500 192500 192500 193500 194000 194500	188284 188775 189266 189757 190248 190739 191230 191721 192212 192703	467.769 467.230 466.692 466.153 465.614 465.076 464.537 463.998 463.460 462.921	8.099 7.561 7.022 6.483 5.944 5.406 4.867 4.328 3.790 3.251	-13.278 -13.577 -13.877 -14.176 -14.475 -14.775 -15.074 -15.373 -15.672 -15.971	2.94703 - 1 2.88958 2.83319 2.77785 2.772352 2.67020 2.61786 2.56649 2.51608 2.46660	8.70257 - 3 8.53293 8.36642 8.20298 8.04255 7.88508 7.73054 7.57885 7.42997 7.28386	2.90849 - 4 2.85180 2.79615 2.74152 2.68790 2.63528 2.58363 2.53293 2.48318 2.48318	2.4663 - 5 2.4210 2.3765 2.3328 2.2898 2.2475 2.1653 2.1252 2.0858	3.2250 - 4 3.1658 3.1076 3.0504 2.9942 2.9390 2.8847 2.8314 2.7790 2.7275
195000 195500 196000 196500 197000 197500 198000 198500 199000	193193 193684 194175 194666 195156 195647 196138 196628 197119 197609	462-383 461-844 461-306 460-767 460-229 459-690 459-152 458-614 458-075 457-537	2.713 2.174 1.636 1.097 0.559 0.021 -0.518 -1.056 -1.595 -2.133	-16.271 -16.570 -16.869 -17.168 -17.467 -17.766 -18.065 -18.664 -18.963	2.41804 - 1 2.37038 2.32361 2.27772 2.23268 2.18848 2.14511 2.10255 2.06078 2.01981	7.14047 - 3 6.99974 6.86163 6.72610 6.59309 6.46257 6.33449 6.20882 6.08549 5.96448	2.38642 - 4 2.33939 2.29323 2.24793 2.20348 2.15986 2.11705 2.07505 2.07505 2.03384 1.99339	2.0472 - 5 2.0092 1.9718 1.9351 1.8991 1.8637 1.8289 1.7947 1.7611	2.6769 - 4 2.6272 2.5764 2.5304 2.4833 2.4370 2.3915 2.3468 2.3029 2.2597
200000 200500 201000 201500 202500 202500 203500 203500 204000 204500	198100 198591 199081 199572 200062 200552 201043 201533 202024 202514	456.999 456.461 455.922 455.384 454.846 453.846 452.769 451.693 450.617 449.541	-2.671 -3.209 -3.748 -4.286 -4.824 -5.824 -6.901 -7.977 -9.053	-19.262 -19.561 -19.860 -20.159 -20.458 -21.013 -21.611 -22.209 -22.807 -23.405	1.97960 - 1 1.94015 1.90144 1.86346 1.82619 1.78962 1.75370 1.71841 1.68376 1.64972	5.84575 - 3 5.72925 5.61494 5.50279 5.39275 5.28475 5.17866 5.07447 4.97213 4.87163	1.95371 - 4 1.91477 1.87657 1.83909 1.80231 1.76622 1.73076 1.69594 1.66174 1.62815	1.6957 - 5 1.6639 1.6326 1.6019 1.5717 1.5436 1.5162 1.4893 1.4627	2.2174 - 4 2.1757 2.1348 2.0947 2.0552 2.0185 1.9827 1.9474 1.9127
205000 205500 206500 206500 207600 207500 208000 208500 209500	203004 203495 203985 204475 204965 205456 20546 206926 206926	448.465 447.389 446.313 445.237 444.161 443.086 442.010 440.934 439.858 438.783	-11.205 -12.281 -13.357 -14.433 -15.509 -16.584 -17.660 -18.736 -19.812 -20.887	-24.003 -24.601 -25.198 -25.796 -26.394 -26.991 -27.589 -28.187 -28.784 -29.382	1.61630 - 1 1.58348 1.55125 1.51960 1.48852 1.45801 1.42805 1.39864 1.36977 1.34142	4.77293 - 3 4.67601 4.58083 4.88737 4.39560 4.30549 4.21703 4.13018 4.04492 3.96121	1.59516 - 4 1.56277 1.53096 1.49973 1.46906 1.43894 1.40938 1.38035 1.35185 1.32388	1.4109 - 5 1.3855 1.3606 1.3361 1.3119 1.2881 1.2647 1.2417 1.2191	1.8449 - 4 1.8118 1.77792 1.7471 1.7155 1.6844 1.6538 1.6237 1.5941
210000 210500 211000 211500 212000 212500 213500 213500 214000 214500	207906 208396 208886 209376 209866 210356 210846 211336 211826 212316	437.707 436.632 435.556 434.481 433.406 432.330 431.255 430.180 429.105 428.030	-21.963 -23.038 -24.114 -25.189 -26.264 -27.340 -28.415 -29.490 -30.565 -31.640	-29.979 -30.577 -31.174 -31.772 -32.369 -32.966 -33.564 -34.161 -34.758 -35.356	1.31360 - 1 1.28628 1.25947 1.23316 1.20734 1.18199 1.15712 1.13271 1.10876 1.08526	3.87905 - 3 5.779839 3.71923 3.64153 3.56527 3.49042 3.41697 3.34489 3.27416 3.20476	1.29642 - 4 1.26946 1.24301 1.21704 1.19155 1.16654 1.14199 1.11790 1.07426	1.1748 - 5 1.1532 1.1320 1.1111 1.0905 1.0703 1.0503 1.0308 1.0115 9.9254 - 6	1.5362 - 4 1.5080 1.4802 1.4529 1.4260 1.3995 1.3735 1.3479 1.3227
215000 215500 216000 216500 217000 217500 218500 218500 219000	212806 213296 213785 214275 214765 215255 215745 216234 216724 217214	426.955 425.880 424.805 423.730 422.655 421.580 420.506 419.431 418.356 417.282	-32.715 -33.790 -34.865 -35.940 -37.015 -38.090 -39.164 -40.239 -41.314 -42.388	-35.953 -36.550 -37.147 -37.744 -38.342 -38.939 -39.536 -40.133 -40.730 -41.327	1.06220 - 1 1.03957 1.01737 9.95595 - 2 9.74231 9.53274 9.32718 9.12554 8.92777 8.73380	3.13666 - 3 3.06985 3.00430 2.93999 2.87690 2.81502 2.75431 2.69477 2.63637 2.57909	1.04831 - 4 1.02598 1.00407 9.82576 - 5 9.61492 9.40809 9.20521 9.00621 8.81103 8.61959	9.7390 - 6 9.5556 9.3752 9.1978 9.0233 8.8517 8.6830 8.5170 8.3538 8.1934	1.2735 - 4 1.2495 1.2259 1.2027 1.1799 1.1575 1.1354 1.1137 1.0024
220000 220500 221000 221500 222500 223500 223500 224500 224500	217703 218193 218682 219172 219661 220151 220640 221130 221619 222109	416.207 415.133 414.059 412.984 411.910 410.836 409.761 408.687 407.613 406.539	-43.463 -44.537 -45.611 -46.686 -47.760 -48.834 -49.909 -50.983 -52.057 -53.131	-41.924 -42.521 -43.117 -43.714 -44.311 -44.908 -45.505 -46.102 -46.698 -47.295	8.54358 - 2 8.35703 8.17409 7.99471 7.81882 7.64636 7.47728 7.31152 7.14901 6.98972	2.52292 - 3 2.46783 2.41381 2.36084 2.30890 2.25797 2.20804 2.15909 2.11110 2.06406	8.43186 - 5 8.24775 8.06720 7.89016 7.71657 7.54637 7.37950 7.21591 7.05553 6.89831	8.0356 - 6 7.8805 7.7280 7.5781 7.4307 7.2858 7.1434 7.0034 6.8657 6.7305	1.0508 - 4 1.0305 1.0105 9.9093 - 5 9.7166 9.5271 9.3409 9.1578 8.9779 8.8010
225000 225500 226000 226500 227500 227500 228000 228500 229500	222598 223087 223577 224066 224555 225045 225534 226023 226512 227002	405.465 404.391 403.317 402.243 401.170 400.096 399.022 397.948 396.875 395.801	-54.205 -55.279 -56.353 -57.427 -58.500 -59.574 -60.648 -61.722 -62.795 -63.869	-47.892 -48.488 -49.085 -49.681 -50.278 -50.875 -51.471 -52.068 -52.664	6.83357 - 2 6.68051 6.53050 6.38348 6.23939 6.09819 5.955983 5.82425 5.69140 5.56125	2.01795 - 3 1.97275 1.92846 1.88504 1.88249 1.80079 1.75994 1.71990 1.68067 1.64224	6.74421 - 5 6.59315 6.44510 6.30000 6.15780 6.01845 5.88189 5.74808 5.61698 5.48853	6.5976 - 6 6.4669 6.3385 6.2124 6.0884 5.9666 5.8469 5.7293 5.6138 5.5003	8.6272 - 5 8.4563 8.2885 8.1235 7.9614 7.8021 7.6456 7.4918 7.3407 7.1923

TABLE IX.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperature	•		Pressure		Den	sity
H, ft	Z, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P _o	ρ, lb ft ⁻³	<u>ρ</u> Ρ _ο
230000 230500 231000 231500 232500 232500 233500 233500 234500	232565 233076 233588 234099 234610 235122 235633 236144 236656 237167	389.221 388.124 387.027 385.929 384.832 383.735 382.638 381.540 380.443 379.346	-70.449 -71.546 -72.643 -73.741 -74.838 -75.935 -77.032 -78.130 -79.227 -80.324	-56.916 -57.526 -58.135 -58.745 -59.354 -59.964 -60.574 -61.183 -61.793 -62.402	4.81935 - 2 4.70454 4.59215 4.48213 4.37445 4.26906 4.16592 4.06498 3.96621 3.86956	1.42315 - 3 1.38925 1.35906 1.32357 1.29177 1.26065 1.23019 1.20039 1.17122 1.14268	4.75633 - 5 4.64302 4.53210 4.42352 4.31725 4.21323 4.11144 4.01182 3.91434 3.81896	4.8471 - 6 4.7450 4.6448 4.5464 4.4498 4.3550 4.2620 4.1707 4.0811 3.9932	6.3382 - 5 6.2047 6.0736 5.9450 5.8187 5.6948 5.5731 5.4537 5.3366 5.2216
235000 235500 236500 236500 237500 237500 238500 238500 239500	237679 238190 238702 239713 239725 240236 240748 241259 241771 242283	378.248 377.151 376.054 374.957 373.859 372.762 371.665 370.567 369.470 368.373	-81.422 -82.519 -83.616 -84.713 -85.811 -86.908 -88.005 -89.103 -90.200 -91.297	-63.012 -63.622 -64.231 -64.841 -65.450 -66.060 -66.670 -67.279 -67.889 -68.498	3.77500 - 2 3.68249 3.59198 3.50344 3.41684 3.33213 3.24928 3.16825 3.08902 3.01154	1.11476 - 3 1.08744 1.06071 1.03457 1.00899 9.83977 - 4 9.59512 9.35585 9.12186 8.89306	3.72564 - 5 3.63433 3.54501 3.45763 3.37216 3.28856 3.20679 3.12682 3.04862 2.97215	3.9069 - 6 3.8222 3.7392 3.6577 3.5777 3.4993 3.4224 3.3469 3.2729 3.2003	5.1088 - 5 4.9980 4.8894 4.7829 4.6783 4.5755 4.4752 4.3765 4.2797
240000 240500 241000 241500 242500 242500 243500 243500 244500	242794 243306 243818 244330 244842 245355 245865 246377 246889 247401	367.276 366.178 365.081 363.984 362.886 361.789 360.692 359.595 358.497 357.400	-92.394 -93.492 -94.589 -95.686 -96.784 -97.881 -98.978 -100.075 -101.173 -102.270	-69.108 -69.718 -70.327 -70.937 -71.546 -72.156 -72.766 -73.985 -74.594	2.93577 - 2 2.86170 2.78928 2.71849 2.64929 2.58164 2.51553 2.45091 2.38777 2.32606	8.66934 - 4 8.45060 8.23675 8.02770 7.82334 7.62358 7.42835 7.23754 7.05107 6.86886	2.89738 - 5 2.82428 2.75281 2.68294 2.61464 2.54788 2.48263 2.41886 2.35654 2.29565	3.1291 - 6 3.0593 2.9908 2.9237 2.8579 2.7734 2.7301 2.6681 2.66073 2.5477	4.0917 - 5 4.0004 3.9109 3.8231 3.7371 3.6527 3.5700 3.4889 3.4094 3.33315
245000 245500 246000 246500 247500 247500 248000 248000 249000 249500	247913 248425 248937 249449 249961 250473 250985 251497 252009 252521	356.303 355.206 354.11 353.01 351.91 350.82 349.72 348.62 347.52 346.43	-103.367 -104.464 -105.56 -106.66 -107.76 -108.85 -109.95 -111.05 -112.15 -113.24	-75.204 -75.814 -76.42 -77.03 -77.64 -78.25 -79.47 -80.08 -80.69	2.26577 ~ 2 2.20686 2.1493 2.0931 2.0382 1.9845 1.9321 1.8810 1.8310 1.7822	6.69082 - 4 6.51686 6.3469 6.1809 6.0187 5.8603 5.7056 5.5545 5.4069 5.2628	2.23614 - 5 2.17800 2.1212 2.0657 2.0115 1.9586 1.9069 1.8564 1.8071 1.7589	2.4894 - 6 2.4321 2.376 2.321 2.267 2.214 2.163 2.112 2.062 2.014	3.2552 - 5 3.1803 3.107 3.035 2.965 2.896 2.828 2.762 2.697 2.633
250000 250500 251000 251500 252500 252500 253500 253500 254000 254500	253034 253546 254058 254570 2555083 255595 256107 256620 257132 257645	345.33 344.23 343.14 342.04 340.94 339.84 338.75 337.65 336.55 335.45	-114.34 -115.44 -116.53 -117.63 -118.73 -119.83 -120.92 -122.02 -123.12 -124.22	-81.30 -81.91 -82.52 -83.13 -83.74 -84.35 -84.96 -85.57 -86.18	1.7346 ~ 2 1.6880 1.6426 1.55983 1.5550 1.5128 1.4716 1.4314 1.3921 1.3538	5.1222 - 4 4.9848 4.8507 4.7198 4.5921 4.4673 4.3456 4.2269 4.1110 3.9979	1.7119 - 5 1.6660 1.6212 1.5774 1.5347 1.4930 1.4524 1.4127 1.3739 1.3361	1.966 - 6 1.920 1.874 1.829 1.785 1.743 1.701 1.660 1.619	2.571 - 5 2.510 2.450 2.392 2.335 2.279 2.224 2.170 2.117 2.066
255000 255500 256000 256500 257500 257500 258500 258500 259500	258157 258669 259182 259694 260207 260720 261232 261745 262257 262770	334.36 333.26 332.16 331.07 329.97 328.87 327.77 326.68 325.58 325.17	-125.31 -126.41 -127.51 -128.60 -129.70 -130.80 -131.90 -132.99 -134.09 -134.50	-87.40 -88.01 -88.62 -89.22 -89.83 -90.44 -91.05 -91.66 -92.27 -92.50	1.3165 - 2 1.2800 1.2445 1.2098 1.1760 1.1430 1.1108 1.0795 1.0489	3.8876 - 4 3.7800 3.6750 3.5726 3.4727 3.3753 3.2803 3.1877 3.0974	1.2993 - 5 1.2633 1.2282 1.1940 1.1606 1.1281 1.0963 1.0654 1.0352 1.0058	1.541 - 6 1.504 1.467 1.431 1.395 1.361 1.327 1.294 1.261	2.015 - 5 1.966 1.918 1.871 1.824 1.779 1.735 1.691 1.694
260000 260500 261000 261500 262500 262500 263500 263500 264500	263283 263796 264308 264821 265334 265847 266359 266872 267385 267898	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	9.9015 - 3 9.6202 9.3469 9.0814 8.8234 8.5727 8.3292 8.0926 7.8627 7.6393	2.9239 - 4 2.8409 2.7601 2.6817 2.6055 2.5315 2.4596 2.3897 2.3218 2.2559	9.7721 - 6 9.4944 9.2247 8.9626 8.7080 8.4606 8.2203 7.9867 7.75598 7.5394	1.192 - 6 1.158 1.125 1.093 1.062 1.032 1.003 9.742 - 7 9.466	1.559 - 5 1.514 1.471 1.430 1.389 1.350 1.311 1.274 1.238 1.203
265000 265500 266000 266500 267500 267500 268500 268500 269500	268411 268924 269437 269950 270463 270976 271489 272002 272516 273029	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	7.4223 - 3 7.2114 7.0065 6.8075 6.6141 6.4262 6.2436 6.0662 5.8939 5.7264	2.1918 - 4 2.1295 2.0690 2.0102 1.9531 1.8976 1.8437 1.7914 1.7405 1.6910	7.3252 - 6 7.1171 6.9149 6.7184 6.5276 6.3421 6.1620 5.9869 5.8168 5.6516	8.935 - 7 8.682 8.435 8.195 7.962 7.736 7.516 7.303 7.095 6.894	1.168 - 5 1.135 1.103 1.072 1.041 1.012 9.829 - 6 9.550 9.278 9.015

TABLE IX.—Continued
GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	т	emperature	•		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _o	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{\rm o}}$
230000 230500 231000 231500 232500 232500 233500 234000 234500	227491 227980 228469 228958 229447 229936 230425 230414 231403 231892	394.728 393.654 392.581 391.508 390.434 389.361 388.288 387.215 386.142 385.069	-64.942 -66.016 -67.089 -68.162 -69.236 -70.309 -71.382 -72.455 -73.528 -74.601	-53.857 -54.453 -55.049 -56.242 -56.838 -57.434 -58.027 -59.223	5.43373 - 2 5.30882 5.18644 5.06658 4.94917 4.83417 4.72155 4.61125 4.50324 4.39747	1.60458 - 3 1.56769 1.53156 1.49616 1.46149 1.42753 1.39427 1.36170 1.32981 1.29857	5.36268 - 5 5.23939 5.11862 5.00032 4.88445 4.77096 4.65980 4.55095 4.44435 4.33997	5.3888 - 6 5.2793 5.1717 5.0660 4.9622 4.8603 4.7601 4.6618 4.5653 4.4705	7.0465 - 5 6.9033 6.7626 6.6244 6.4887 6.3554 6.2245 6.0959 5.9697 5.8457
235000 235500 236000 236500 237500 237500 238500 238500 239000	232381 232870 233359 233848 234337 234825 235314 235803 236292 236780	383-996 382-923 381-850 380-777 379-704 378-632 377-559 376-486 375-414 374-341	-75.674 -76.747 -77.820 -78.893 -79.966 -81.038 -82.111 -83.184 -84.256 -85.329	-59.819 -60.415 -61.011 -61.607 -62.203 -62.799 -63.395 -63.991 -64.587 -65.183	4.29391 - 2 4.19251 4.09324 3.99606 3.90092 3.80778 3.71663 3.62741 3.54009 3.45463	1.26799 - 3 1.23805 \ 1.20873 1.18003 1.15194 1.12444 1.09752 1.07117 1.04539	4.23776 - 5 4.13769 4.03972 3.94380 3.84990 3.75799 3.66803 3.57997 3.49379 3.40946	4.3774 - 6 4.2860 4.1963 4.1082 4.0217 3.9368 3.8535 3.7717 3.6914 3.6126	5.7240 - 5 5.6045 5.4872 5.3720 5.2589 5.1479 5.0389 4.9320 4.8270 4.7240
240000 240500 241000 241000 242000 242500 243500 243500 244000 244500	237269 237758 238246 238735 239224 239712 240201 240689 241178 241666	373.269 372.196 371.124 370.052 368.979 367.907 366.835 365.763 364.691 363.619	-86.401 -87.474 -88.546 -89.6618 -90.691 -91.763 -92.835 -93.907 -94.979 -96.051	-65.779 -66.374 -66.976 -67.566 -68.762 -68.757 -69.353 -69.948 -70.544	3.37101 - 2 3.28918 3.20911 3.13078 3.05414 2.97916 2.90582 2.83408 2.76391 2.69529	9.95458 - 4 9.71294 9.47651 9.24518 9.01887 8.79746 8.58089 8.36904 8.16183 7.95918	3.32693 - 5 3.24617 3.16715 3.08984 3.01420 2.94020 2.86782 2.79702 2.72777 2.66004	3.5353 - 6 3.4594 3.3850 3.3119 3.2402 3.1699 3.1009 3.0332 2.9668 2.9017	4.6229 - 5 4.5237 4.4263 4.3308 4.2370 4.1451 4.0548 3.9663 3.8795 3.7943
245000 245500 246500 246500 247000 247500 248500 248500 249500	242155 242643 243132 243620 244108 244597 245085 245573 246062 246550	362.547 361.475 360.40 359.33 358.26 357.19 356.12 355.04 353.97 352.90	-97.123 -98.195 -99.27 -100.34 -101.41 -102.48 -103.55 -104.63 -105.70 -106.77	-71.735 -72.331 -72.93 -73.52 -74.12 -74.71 -75.31 -75.90 -76.50 -77.09	2-62817 - 2 2-56254 2-4984 2-4356 2-3743 2-3743 2-2556 2-1983 2-1423 2-0875	7.76099 - 4 7.56718 7.3777 7.1924 7.0112 6.8341 6.6609 6.4916 6.3262 6.1645	2.59380 - 5 2.52903 2.4657 2.4038 2.3432 2.2840 2.2261 2.1096 2.1143 2.0602	2.8378 - 6 2.7751 2.7714 2.653 2.594 2.536 2.480 2.424 2.369 2.316	3.7108 - 5 3.6288 3.548 3.470 3.392 3.317 3.242 3.169 3.098
250000 250500 251000 251500 252000 252500 253500 253500 254000 254500	247038 247526 248015 248503 248591 249479 249479 249467 250455 250943 251431	351.83 350.76 349.69 348.62 347.54 346.47 345.40 344.33 343.26 342.19	-107.84 -108.91 -109.98 -111.05 -112.13 -113.20 -114.27 -115.34 -116.41 -117.48	-77.69 -78.28 -78.88 -79.47 -80.07 -80.66 -81.26 -81.85 -82.45 -83.05	2.0340 - 2 1.9817 1.9306 1.8807 1.88319 1.7842 1.7377 1.6922 1.64277	6.0065 - 4 5.850711 5.5537 5.4096 5.2688 5.1313 4.9770 4.8658 4.7376	2.0074 - 5 1.9558 1.9054 1.8561 1.8079 1.7609 1.7149 1.6700 1.6262 1.5834	2.263 - 6 2.212 2.161 2.162 2.063 2.016 1.969 1.924 1.879 1.835	2.959 - 5 2.892 2.826 2.761 2.698 2.636 2.575 2.516 2.457 2.400
255000 255500 256000 256500 257600 257500 258500 258500 259000 259500	251919 252407 252895 253383 253871 254359 254847 255335 255822 256310	341.12 340.05 338.98 337.91 336.83 335.76 334.69 333.62 332.55 331.48	-118.55 -119.62 -120.69 -121.76 -122.84 -123.91 -124.98 -126.05 -127.12 -128.19	-83.64 -84.23 -84.83 -85.42 -86.02 -86.61 -87.21 -87.80 -88.40 -88.99	1.5620 - 2 1.5206 1.4802 1.4407 1.407 1.4022 1.3046 1.3278 1.2920 1.2570 1.2229	4.6125 - 4 4.3709 4.2544 4.1406 4.0295 3.9211 3.8153 3.7119 3.6111	1.5415 - 5 1.5007 1.4608 1.4219 1.3838 1.3467 1.3105 1.2751 1.2406 1.2069	1.792 - 6 1.750 1.709 1.669 1.630 1.591 1.553 1.516 1.480	2.344 - 5 2.289 2.235 2.182 2.131 2.080 2.031 1.982 1.935 1.888
260000 260500 261000 261500 262000 262500 263500 263500 264000 264500	256798 257286 257774 258261 258749 259237 259724 260212 260699 261187	330.41 329.34 328.27 327.20 326.13 325.17 325.17 325.17 325.17	-129.26 -130.33 -131.40 -132.47 -133.54 -134.50 -134.50 -134.50 -134.50	-89.59 -90.18 -90.78 -91.37 -91.97 -92.50 -92.50 -92.50 -92.50	1.1895 - 2 1.1570 1.1253 1.0944 1.0642 1.0347 1.0060 9.7814 - 3 9.5103 9.2468	3.5127 - 4 3.4167 3.3230 3.2316 3.1425 3.0555 2.9708 2.8884 2.8084 2.7306	1.1740 - 5 1.1419 1.1106 1.0800 1.0502 1.0212 9.9287 - 6 9.6535 9.3859 9.1258	1.409 - 6 1.375 1.342 1.309 1.277 1.246 1.211 1.178 1.145 1.113	1.843 - 5 1.798 1.755 1.712 1.670 1.629 1.584 1.540 1.497
265000 265500 266000 266500 267500 267500 268000 268500 269000 269500	261675 262162 262650 263137 263624 264112 264599 265087 265574 266061	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	8.9905 - 3 8.7414 8.4992 8.2637 8.0347 7.8121 7.5957 7.3853 7.1807 6.9818	2.6549 - 4 2.5813 2.5098 2.403 2.3727 2.3069 2.2430 2.1809 2.1205 2.0617	8.8729 - 6 8.6271 8.3880 8.1556 7.9297 7.7100 7.4964 7.2887 7.0868 6.8905	1.082 - 6 1.052 1.023 9.948 - 7 9.673 9.405 9.144 8.891 8.645 8.405	1.415 ~ 5 1.376 1.338 1.301 1.265 1.230 1.196 1.163 1.130

TABLE IV.—Concluded
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

	Altitude Temperature		Pressure			Density		
Z, ft	T, °R	t,°F	t,°C	P, mb	P, in. Hg	P P°	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
273542 274055 274568 275082 275595 276108 276622 277135 277648 278162	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	5.5638 - 3 5.4057 5.2521 5.1029 4.9579 4.8171 4.6802 4.5473 4.4181 4.2926	1.6430 - 4 1.5963 1.5510 1.5069 1.4641 1.4225 1.3821 1.3428 1.3047 1.2676	5.4910 - 6 5.3350 5.1834 5.0362 4.8931 4.7541 4.6190 4.4878 4.3603 4.2364	6.698 - 7 6.508 6.323 6.143 5.969 5.799 5.634 5.474 5.319 5.168	8.759 - 6 8.510 8.268 8.033 7.805 7.583 7.368 7.158 6.955
278675 279189 279702 280216 280729 281243 281756 282270 282784 283297	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	4.1706 - 3 4.0521 3.9370 3.8252 3.7165 3.6109 3.5083 3.4087 3.3118 3.2177	1.2316 - 4 1.1966 1.1626 1.1296 1.0975 1.0663 1.0360 1.0366 9.7798 - 5	4.1161 - 6 3.9992 3.8855 3.7752 3.6679 3.5637 3.4625 3.3641 3.2685 3.1757	5.021 - 7 4.878 4.740 4.605 4.474 4.347 4.224 4.104 3.987 3.874	6.565 - 6 6.379 6.198 6.022 5.851 5.684 5.523 5.366 5.214 5.065
283811 284325 284838 285352 285866 286380 286894 287408 287921 288435	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	3.1263 - 3 3.0375 2.9512 2.8674 2.7859 2.7068 2.6299 2.5552 2.4826 2.4120	9.2320 - 5 8.9698 8.7149 8.4674 8.2268 7.9931 7.7660 7.5454 7.3310 7.1227	3.0854 - 6 2.99126 2.9126 2.8299 2.7495 2.6714 2.5955 2.5217 2.4501 2.3805	3.764 - 7 3.657 3.553 3.452 3.354 3.259 3.166 3.076 2.989 2.904	4-922 - 6 4-762 4-646 4-514 4-386 4-140 4-022 3-908 3-797
288949 289463 289977 290491 291005 291519 292033 292548 293062 293576	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	2.3435 - 3 2.2769 2.2122 2.1494 2.0883 2.0290 1.9714 1.9154 1.8609 1.8081	6.9204 - 5 6.7238 6.5328 6.3472 6.1669 5.9917 5.8214 5.6561 5.4954 5.3392	2.3129 - 6 2.2472 2.1833 2.1213 2.0610 2.0025 1.9456 1.8903 1.8366 1.7844	2.821 - 7 2.741 2.663 2.588 2.514 2.443 2.373 2.373 2.306 2.240 2.177	3.689 - 6 3.584 3.483 3.384 3.287 3.194 3.103 3.015 2.930 2.886
294090 294604 295119 295633 296147 296661 297176 297690 298204 298719	325.17 325.17 325.17 325.75 326.60 327.44 328.28 329.12 329.97 330.81	-134.50 -134.50 -134.50 -133.92 -133.07 -132.23 -131.39 -130.55 -129.70 -128.86	-92.50 -92.50 -92.50 -92.18 -91.71 -91.24 -90.77 -90.30 -89.84 -89.37	1.7567 - 3 1.7068 1.6583 1.6112 1.5656 1.5214 1.4785 1.4369 1.3967	5.1876 - 5 5.0402 4.8970 4.7580 4.6232 4.4926 4.3660 4.2433 4.1243	1.7337 - 6 1.6845 1.6366 1.5902 1.5451 1.5015 1.4592 1.4182 1.3784 1.3398	2.115 - 7 2.055 1.996 1.936 1.876 1.819 1.763 1.709 1.657	2.765 - 6 2.687 2.611 2.532 2.454 2.378 2.305 2.235 2.167 2.101
299233 299748 300262 300777 301291 301806 302321 302835 303350 303864	331.65 332.49 333.33 334.18 335.02 335.86 336.70 337.54 338.38	-128.02 -127.18 -126.34 -125.49 -124.65 -123.81 -122.97 -122.13 -121.29 -820.45	-88.90 -88.43 -87.96 -87.50 -87.03 -86.56 -86.09 -85.63 -85.16 -84.69	1.3197 - 3 1.2830 1.2474 1.2129 1.1794 1.1469 1.1154 1.0848 1.0551 1.0264	3.8972 - 5 3.7887 3.6836 3.5816 3.4827 3.3867 3.2937 3.2034 3.1158 3.0308	1.3025 - 6 1.2662 1.2311 1.1970 1.1639 1.1319 1.1008 1.0706 1.0413	1.558 - 7 1.510 1.465 1.421 1.378 1.337 1.297 1.258 1.220 1.184	2.037 - 6 1.975 1.975 1.858 1.802 1.748 1.605 1.645 1.548
304379	340.06	-119.61	-84.23	9.9843 - 4	2.9484 - 5	9.8537 - 7	1.149 - 7	1.503 - 6
					·			
_	273542 274055 274568 275082 275595 276108 276622 277135 2771648 278162 277135 2771648 280216 280729 280216 280729 280216 280729 2802270 280729 2802270 282784 283297 283811 284838 2853866 2858866 286894 287921 2888435 2888435 289977 290491 291005 292033 292033 29376661 291090 294604 297690 298719 292033 29376661 297690 298719 299233 290748 299777 2996661 297690 298719 299233 290748 299777 299233 290748 290748 297690 298719 299233 290748 299777 2998719 299233 290748 299777 290748 290748 290748 290748 290748 290748 290748 290748 290748 290748 290748 290748 290748 290748 300262 300777 301291 30	273542 325.17 274568 325.17 2755082 325.17 2755082 325.17 276108 325.17 276108 325.17 276108 325.17 277135 325.17 277148 325.17 277148 325.17 278162 325.17 2780729 325.17 280216 325.17 280729 325.17 280729 325.17 281243 325.17 281243 325.17 28270 325.17 282784 325.17 282784 325.17 282784 325.17 283811 325.17 284838 325.17 284838 325.17 284838 325.17 285869 325.17 287408 325.17 287408 325.17 287907 325.17 287909 325.17 287909 325.17 287909 325.17 290090 325.17 290090 325.17 290090 325.17 291005 325.17 291005 325.17 292033 325.17 293062 325.17 294090 325.17 294090 325.17 29519 325.17 29519 325.17 29519 325.17 294090 325.17 29519 325.17 29519 325.17 29519 325.17 294090 325.17 294090 325.17 29519 325.17 294090 325.17	273542 325.17 -134.50 275082 325.17 -134.50 275082 325.17 -134.50 275082 325.17 -134.50 275595 325.17 -134.50 276108 325.17 -134.50 276622 325.17 -134.50 277648 325.17 -134.50 277648 325.17 -134.50 2778162 325.17 -134.50 278675 325.17 -134.50 278675 325.17 -134.50 280216 325.17 -134.50 280216 325.17 -134.50 280729 325.17 -134.50 281243 325.17 -134.50 281243 325.17 -134.50 281243 325.17 -134.50 281243 325.17 -134.50 28270 325.17 -134.50 28270 325.17 -134.50 28270 325.17 -134.50 282710 325.17 -134.50 282710 325.17 -134.50 282710 325.17 -134.50 282710 325.17 -134.50 282710 325.17 -134.50 282710 325.17 -134.50 282710 325.17 -134.50 282710 325.17 -134.50 282710 325.17 -134.50 283811 325.17 -134.50 284838 325.17 -134.50 285866 325.17 -134.50 285866 325.17 -134.50 286848 325.17 -134.50 287921 325.17 -134.50 287921 325.17 -134.50 287921 325.17 -134.50 287921 325.17 -134.50 287921 325.17 -134.50 287921 325.17 -134.50 287921 325.17 -134.50 287921 325.17 -134.50 287921 325.17 -134.50 287921 325.17 -134.50 287921 325.17 -134.50 298040 325.17 -134.50 291005 325.17 -134.50 291005 325.17 -134.50 291006 325.17 -134.50 291007 3	273542 325.17 -134.50 -92.50 274568 325.17 -134.50 -92.50 275082 325.17 -134.50 -92.50 275595 325.17 -134.50 -92.50 276108 325.17 -134.50 -92.50 276108 325.17 -134.50 -92.50 276108 325.17 -134.50 -92.50 276108 325.17 -134.50 -92.50 277618 325.17 -134.50 -92.50 277618 325.17 -134.50 -92.50 277618 325.17 -134.50 -92.50 278675 325.17 -134.50 -92.50 278675 325.17 -134.50 -92.50 278072 325.17 -134.50 -92.50 279189 325.17 -134.50 -92.50 280729 325.17 -134.50 -92.50 280729 325.17 -134.50 -92.50 281726 325.17 -134.50 -92.50 281726 325.17 -134.50 -92.50 281726 325.17 -134.50 -92.50 28270 325.17 -134.50 -92.50 28270 325.17 -134.50 -92.50 28270 325.17 -134.50 -92.50 282270 325.17 -134.50 -92.50 283291 325.17 -134.50 -92.50 283291 325.17 -134.50 -92.50 283201 325.17 -134.50 -92.50 283201 325.17 -134.50 -92.50 283201 325.17 -134.50 -92.50 283201 325.17 -134.50 -92.50 284325 325.17 -134.50 -92.50 285866 325.17 -134.50 -92.50 285866 325.17 -134.50 -92.50 286884 325.17 -134.50 -92.50 286946 325.17 -134.50 -92.50 287921 325.17 -134.50 -92.50 287921 325.17 -134.50 -92.50 287921 325.17 -134.50 -92.50 287921 325.17 -134.50 -92.50 287921 325.17 -134.50 -92.50 287921 325.17 -134.50 -92.50 287921 325.17 -134.50 -92.50 287921 325.17 -134.50 -92.50 287921 325.17 -134.50 -92.50 2879409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 29503 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 2950409 325.17 -134.50 -92.50 294090 325.17 -134.50 -92.50 294090 325.17 -134.50 -92.50 294090 325.17 -134.50 -92.50 294090 325.17 -134.50 -92.50 294090 325.17 -134.50 -92.50 29504090 325.17 -134.50 -92.50 29504090 325.17 -134.50 -92.50 29504090 325.17 -134.50 -92.50 29504090 325.17 -134.50 -92.50 29504090 325.17 -134.50 -92.50 29504090 325.17 -134.50 -	2735\(2 \) 274\(0 \) 274\(0 \) 274\(0 \) 274\(0 \) 275\(0 \) 276\(0 \) 277\(0 \)	2735%2	2735\(2\) 325.17 \(-13\) .50 \\ -92.50 \\ 5.5636\(-3\) \\ 1.5963 \\ 5.3350 \\ 5.3350 \\ 2755\(0 \) 325.17 \\ -13\) .50 \\ -92.50 \\ 5.5636\(-3\) \\ 1.5963 \\ 325.17 \\ -13\) .50 \\ -92.50 \\ 5.1029 \\ 1.5069 \\ 5.183\(1 \) \\ 2755\(0 \) \\ 325.17 \\ -13\) .50 \\ -92.50 \\ 5.1029 \\ 1.5069 \\ 5.183\(1 \) \\ 1.3\) .50 \\ -92.50 \\ 5.1029 \\ 1.5069 \\ 5.183\(1 \) \\ 1.3\) .50 \\ -92.50 \\ 5.1029 \\ 1.5069 \\ 5.183\(1 \) \\ 1.3\) .50 \\ -92.50 \\ 5.1029 \\ 1.5069 \\ 5.1029 \\	2773542 325.17 -134.50 -92.50 5.5638 -3 1.6430 -4 5.4910 -6 6.698 -7 274055 325.17 -134.50 -92.50 5.4057 1.5963 325.17 -134.50 -92.50 5.4057 1.5963 325.17 -134.50 -92.50 5.2522 1.5510 5.3350 6.508 -7 27508 325.17 -134.50 -92.50 5.2027 1.5510 5.1834 6.373 276108 125.17 -134.50 -92.50 4.8171 1.4225 4.7541 5.799 276022 325.17 -134.50 -92.50 4.8171 1.4225 4.7541 5.799 276022 325.17 -134.50 -92.50 4.8171 1.4225 4.7541 5.799 2776108 325.17 -134.50 -92.50 4.8171 1.4225 4.7541 5.799 2776108 325.17 -134.50 -92.50 4.8181 1.5047 4.3603 5.318 277648 325.17 -134.50 -92.50 4.8541 1.2676 4.2676 4.2784 5.188 1.2

TABLE IX.—Continued
GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	tude	7	emperatur	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P°	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
270000 270500 271500 271500 272000 272500 273500 273500 274000 274500	266549 267036 267523 268010 268498 268985 269475 269959 270446 270933	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	6.7884 - 3 6.6004 6.4176 6.2399 6.0671 5.8990 5.7357 5.5769 5.4225 5.2723	2.0046 - 4 1.9491 1.8951 1.8426 1.7916 1.7420 1.6937 1.6469 1.6013	6.6996 - 6 6.5141 6.3337 6.1583 5.9877 5.8219 5.6607 5.5039 5.3516 5.2034	8.172 - 7 7.946 7.726 7.512 7.304 7.102 6.905 6.714 6.528 6.347	1.069 - 5 1.039 1.010 9.823 - 6 9.551 9.029 8.779 8.536 8.300
275000 275500 276000 276500 277500 277500 278500 278500 279000 279500	271420 271908 272395 272882 273369 273856 274342 274829 275316 275803	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	5.1264 - 3 4.9844 4.8465 4.7123 4.5819 4.4550 4.3317 4.2118 4.0953 3.9820	1.5138 - 4 1.4719 1.4312 1.3915 1.3530 1.3156 1.2792 1.2438 1.2093	5.0593 - 6 4.9193 4.7831 4.6507 4.5219 4.3968 4.2751 4.1568 4.0417 3.9299	6.171 - 7 6.001 5.835 5.673 5.516 5.363 5.215 5.071 4.930	8.070 - 6 7.847 7.629 7.418 7.213 7.013 6.819 6.630 6.447 6.268
280000 280500 281500 281500 282500 282500 283500 283500 284500	276290 276777 277264 277750 278237 278724 279211 279697 280184 280671	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	3.8718 - 3 3.7646 3.6605 3.5592 3.4607 3.3650 3.2719 3.1814 3.0934 3.0078	1.1433 - 4 1.1117 1.0809 1.0510 1.0219 9.9367 - 5 9.6618 9.3945 9.1347 8.8820	3.8211 - 6 3.7154 3.6126 3.5126 3.4154 3.3210 3.2291 3.1398 3.0529 2.9685	4.661 - 7 4.532 4.407 4.285 4.166 4.051 3.939 3.830 3.724 3.621	6.095 - 6 5.926 5.762 5.603 5.448 5.151 5.008 4.870
285000 285500 286500 286500 287500 287500 288500 289500 289500	281157 281644 282130 282617 283103 283590 284076 284563 285049 285536	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	2.9246 - 3 2.8437 7.651 2.6886 2.6142 2.5419 2.4716 2.4033 2.3369 2.2722	8.6363 - 5 8.3974 8.1652 7.9394 7.7198 7.5063 7.2988 7.0970 6.9007 6.7099	2.8863 - 6 2.8065 2.7289 2.6534 2.5800 2.5087 2.4393 2.3719 2.3063 2.2425	3.521 - 7 3.423 3.329 3.237 3.147 3.060 2.976 2.893 2.813 2.735	4.604 - 6 4.477 4.353 4.232 4.115 4.002 3.891 3.783 3.679 3.577
290000 290500 291000 291500 292500 293500 293500 294000 294500	286022 286509 286995 287481 287967 288454 288940 289426 289912 290399	325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17 325.17	-134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50 -134.50	-92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50 -92.50	2.2094 - 3 2.1483 2.0890 2.0312 1.9751 1.9205 1.8674 1.8158 1.7656 1.7168	6.5244 - 5 6.3441 6.1687 5.9982 5.8324 5.6712 5.5144 5.3620 5.2138 5.0697	2.1805 - 6 2.1203 2.0616 2.0046 1.9492 1.8954 1.8430 1.7920 1.7425 1.6944	2.660 - 7 2.586 2.515 2.445 2.378 2.378 2.312 2.248 2.186 2.126 2.067	3.478 - 6 3.382 3.288 3.198 3.109 3.023 2.940 2.858 2.7779 2.703
295000 295500 296000 296500 297600 297500 298500 298500 299500	290885 291371 291857 292343 292829 293315 293801 294287 294773 295259	325.17 325.54 326.36 327.17 327.99 328.81 329.63 330.45 331.27 332.09	-134.50 -134.13 -133.31 -132.50 -131.68 -130.86 -130.04 -129.22 -128.40 -127.58	-92.50 -92.30 -91.84 -91.39 -90.93 -90.48 -90.02 -89.57 -89.11 -88.66	1.6694 - 3 1.6232 1.5785 1.5351 1.4930 1.4522 1.4125 1.3741 1.3368 1.3006	4.9296 - 5 4.7934 4.65331 4.4088 4.2882 4.1712 4.0576 3.9475 3.8405	1.6475 - 6 1.6020 1.5579 1.5150 1.4735 1.4332 1.3941 1.3561 1.3193	2.010 - 7 1.952 1.893 1.837 1.782 1.729 1.677 1.628 1.580	2.628 - 6 2.552 2.476 2.402 2.330 2.261 2.193 2.128 2.065 2.004
300000	295745	332.90	-126.77	-88.20	1.2654 - 3	3.7368 - 5	1.2489 - 6	1.488 - 7	1.946 - 6

Altit	ude	T	emperatur	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	<u>Р</u> Р _о	ρ, lb ft ⁻³	<u>ρ</u> Ρ ₀
300000 301000 302000 303000 304000 305000 306000 307000 308000	295745 296717 297689 298660 299632 300603 301574 302546 303517 304488	332.90 334.54 336.18 337.81 339.44 341.07 342.70 344.33 345.96	-126.77 -125.13 -123.49 -121.86 -120.23 -118.60 -116.97 -115.34 -113.71 -112.09	-88.20 -87.29 -86.39 -85.48 -84.57 -83.67 -81.86 -80.95 -80.05	1.2654 - 3 1.1982 1.1349 1.0752 1.0189 9.6584 - 4 9.1577 8.6852 8.2392 7.8181	3.7368 - 5 3.5383 3.3513 3.1750 3.0089 2.8521 2.7043 2.5647 2.4330 2.3087	1.2489 - 6 1.1825 1.1200 1.0611 1.0056 9.5321 - 7 9.0379 8.5716 8.1315 7.7159	1.488 - 7 1.402 1.321 1.246 1.175 1.108 1.046 9.870 - 8 9.319 8.801	1.946 - 6 1.833 1.728 1.629 1.536 1.449 1.367 1.291 1.219
310000 311000 312000 313000 314000 315000 316000 317000 318000	305459 306430 307400 308371 309342 310312 311283 312253 313223 314193	349.20 350.82 352.44 354.05 355.67 357.28 358.88 360.49 362.09 363.69	-110.47 -108.85 -107.23 -105.62 -104.00 -102.39 -100.79 -99.18 -97.58 -95.98	-79.15 -78.25 -77.35 -76.45 -75.56 -74.66 -73.77 -72.88 -71.99 -71.10	7.4204 - 4 7.0447 6.3541 6.0368 5.7368 5.4529 5.1844 4.9302 4.6896	2.1912 - 5 2.0803 1.9755 1.8764 1.7827 1.6941 1.6103 1.5309 1.4559 1.3848	7.3234 - 7 6.9526 6.6022 6.2710 5.9579 5.6618 5.3816 5.1166 4.8657 4.6282	8.314 - 8 7.856 7.425 7.020 6.638 6.279 5.941 5.623 5.323 5.040	1.087 - 6 1.027 9.709 - 7 9.179 8.681 8.211 7.769 7.353 6.961 6.591
320000 321000 322000 323000 324000 325000 326000 327000 328000	315163 316133 317103 318073 319043 320012 320982 321951 322920 323890	365.28 366.87 368.46 370.04 371.62 373.20 374.78 376.35 377.91 380.48	-94.39 -92.80 -91.21 -89.63 -88.05 -86.47 -84.89 -83.32 -81.76 -79.19	-70.22 -69.33 -68.45 -67.57 -66.69 -65.82 -64.94 -64.07 -63.20 -61.77	4.4617 - 4 4.2459 4.0414 3.8477 3.6640 3.4899 3.3248 3.10196 2.8787	1.3175 - 5 1.2538 1.1934 1.1934 1.1362 1.0820 1.0306 9.8181 - 6 9.3556 8.9168 8.5009	4.4034 - 7 4.1904 3.9886 3.7974 3.6161 3.4443 3.2813 3.1268 2.9801 2.8411	4.774 - 8 4.523 4.286 4.062 3.851 3.652 3.464 3.286 3.119 2.953	6.242 - 7 5.914 5.604 5.312 5.036 4.775 4.530 4.297 4.078 3.861
330000 331000 332000 333000 334000 335000 336000 337000 338000	324859 325828 326797 327766 328734 329703 330672 331640 332609 333577	383.13 385.78 388.42 391.06 393.69 396.32 398.94 401.56 404.17 406.78	-76.54 -73.89 -71.25 -68.61 -65.98 -63.35 -60.73 -58.11 -55.50 -52.89	-60.30 -58.83 -57.36 -55.90 -54.43 -52.97 -51.52 -50.06 -48.61 -47.16	2.7454 - 4 2.6192 2.4996 2.3862 2.2787 2.1768 2.0801 1.9883 1.9012 1.8184	8.1072 - 6 7.7344 7.3812 7.0464 6.7291 6.4281 6.1425 5.8715 5.6142 5.3698	2.7095 - 7 2.5849 2.4669 2.3550 2.2489 2.1483 2.0529 1.9623 1.8763 1.7946	2.796 - 8 2.648 2.509 2.379 2.256 2.140 2.031 1.928 1.831	3.656 - 7 3.463 3.281 3.111 2.950 2.799 2.656 2.552 2.395 2.275
340000 341000 342000 343000 344000 346000 347000 348000 349000	334545 335513 336481 337449 338417 339385 340352 341320 342287 343255	409.39 411.99 414.58 417.17 419.75 422.33 424.90 427.47 430.03 432.59	-50.28 -47.68 -45.09 -42.50 -39.92 -37.34 -34.77 -32.20 -27.08	-45.71 -44.27 -42.83 -41.39 -39.95 -38.52 -37.09 -35.67 -34.24 -32.82	1.7398 - 4 1.6650 1.5940 1.5264 1.4621 1.4009 1.3426 1.2871 1.2343 1.1839	5.1375 - 6 4.7070 4.5074 4.5074 4.3175 4.1367 3.9647 3.8008 3.6447 3.4960	1.7170 - 7 1.6432 1.5731 1.5064 1.4829 1.3825 1.3250 1.2703 1.2181 1.1684	1.65% - 8 1.572 1.495 1.422 1.35% 1.289 1.227 1.169 1.114	2.162 - 7 2.056 1.955 1.860 1.770 1.685 1.605 1.528 1.456 1.388
350000 351000 352000 353000 354000 355000 356000 357000 358000 359000	344222 345189 346157 347124 348090 349057 350024 350991 351957 352924	435.14 437.69 440.23 442.76 445.30 447.82 450.34 452.86 455.36	-24.53 -21.98 -19.44 -16.91 -14.37 -11.85 -9.33 -6.81 -4.31	-31.41 -29.99 -28.58 -27.17 -25.76 -24.36 -22.96 -21.56 -20.17 -18.78	1.1359 - 4 1.0901 1.09464 1.0048 9.6500 - 5 9.2705 8.9081 8.5619 8.2311 7.9150	3.3542 - 6 3.2190 3.0901 2.9671 2.8497 2.7376 2.6305 2.5283 2.4307 2.3373	1.1210 - 7 1.0758 1.0327 9.9162 - 8 9.5238 9.1492 8.7916 8.4499 8.1235 7.8115	1.012 - 8 9.654 - 9 9.210 8.789 8.390 8.011 7.652 7.310 6.986 6.678	1.324 - 7 1.262 1.204 1.149 1.097 1.048 1.001 9.559 - 8 9.135 8.732
360000 361000 362000 363000 364000 365000 367000 368000 369000	353890 354856 355823 356789 357755 358721 359687 360652 361618 362584	460.37 463.15 468.34 473.53 478.70 483.87 489.04 494.19 499.33 504.47	0.70 3.48 8.67 13.86 19.03 24.20 29.37 34.52 39.66 44.80	-17.39 -15.84 -12.96 -10.08 -7.20 -4.33 -1.46 1.40 4.26 7.11	7.6129 - 5 7.3239 7.0485 6.7865 6.5370 6.2994 6.0730 5.8570 5.6510 5.4543	2.2481 - 6 2.1628 2.0814 2.0041 1.9304 1.8602 1.7933 1.7296 1.6687 1.6107	7.5133 - 8 7.2282 6.9564 6.6978 6.4516 6.2170 5.9935 5.7804 5.5771 5.3830	6.385 - 9 6.103 5.806 5.526 5.263 5.015 4.782 4.561 4.353 4.157	8.350 - 8 7.981 7.592 7.226 6.862 6.558 6.252 5.964 5.692 5.436
370000 371000 372000 373000 374000 375000 375000 377000 377000	363549 364514 365480 366445 367410 368375 369340 370305 371270 372234	509-60 514-72 519-84 524-95 530-05 535-14 540-23 545-30 550-37	49.93 55.05 60.17 65.28 70.38 75.47 80.56 85.63 90.70 95.77	9.96 12.81 15.65 18.49 21.32 24.15 26.98 29.80 32.61 35.43	5.2665 - 5 5.0870 4.7513 4.7513 4.5943 4.440 4.3001 4.1622 4.0300 3.9033	1.5552 - 6 1.5022 1.4515 1.4031 1.3567 1.3123 1.2698 1.2291 1.1901 1.1526	5.1976 - 8 5.0205 4.8511 4.6892 4.5343 4.3859 4.1078 3.9773 3.8522	3.971 - 9 3.796 3.630 3.473 3.324 3.183 3.049 2.922 2.802 2.688	5.193 - 8 4.963 4.746 4.581 4.346 4.162 3.987 3.821 3.664
					-				

Altit	ude	Ţ	emperatur	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P P _o	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
380000 381000 382000 383000 384000 385000 386000 388000 389000	373199 374163 375128 376092 377056 378020 378984 379948 380912 381876	560.49 565.54 570.59 575.62 580.65 585.67 590.68 595.69 600.70 605.69	100.82 105.87 110.92 115.95 120.98 126.00 131.01 136.02 141.03 146.02	38.24 41.04 43.84 46.64 49.43 52.22 55.01 57.79 60.57 63.34	3.7817 - 5 3.6650 3.5529 3.4453 3.3419 3.2426 3.1470 3.0551 2.9667 2.8816	1.1167 - 6 1.0823 1.0492 1.0174 9.8688 - 7 9.5753 9.2932 9.0218 8.7607 8.5094	3.7322 - 8 3.6170 3.5065 3.4003 3.2982 3.2002 3.1059 3.0152 2.9279 2.8439	2.579 - 9 2.476 2.378 2.284 2.195 2.111 2.030 1.953 1.880 1.810	3.372 - 8 3.237 3.109 2.987 2.871 2.760 2.654 2.5554 2.458 2.366
390000 391000 392000 393000 394000 395000 397000 397000 399000	382840 383803 384767 385730 386693 387656 388620 389583 390546 391508	610.68 615.66 620.64 625.61 632.16 642.43 652.69 662.94 673.17 683.40	151.01 155.99 160.97 165.94 172.49 182.76 193.02 203.27 213.50 223.73	66.12 68.88 71.65 74.41 78.05 83.76 89.46 95.15 100.84	2.7997 - 5 2.7208 2.6447 2.5714 2.55008 2.4331 2.3683 2.3063 2.2468 2.1898	8.2675 - 7 8.0344 7.8099 7.5934 7.3849 7.1850 6.9937 6.8104 6.6348 6.4664	2.7631 - 8 2.6852 2.6101 2.5378 2.4681 2.4013 2.3374 2.2761 2.2174 2.1611	1.743 - 9 1.679 1.618 1.560 1.500 1.436 1.375 1.317 1.263	2.279 - 8 2.196 2.116 2.040 1.962 1.877 1.798 1.723 1.652 1.585
400000 402000 404000 406000 418000 412000 412000 414000 416000 418000	392471 394396 396321 398246 400170 402094 404017 405940 407863 409785	693.61 714.00 734.36 754.66 774.93 795.16 815.35 835.51 855.63 875.72	233.94 254.33 274.69 294.99 315.26 335.49 355.68 375.84 395.96 416.05	112.19 123.52 134.83 146.11 157.37 168.61 179.82 191.02 202.20 213.36	2.1350 - 5 2.0319 1.9367 1.8484 1.7664 1.6901 1.6190 1.5527 1.4906 1.4324	6.3047 - 7 6.0003 5.7189 5.4582 5.2162 4.9910 4.7810 4.5850 4.4016 4.2298	2.1071 - 8 2.0054 1.9113 1.8242 1.7433 1.6680 1.5979 1.5324 1.4711	1.164 - 9 1.075 9.947 -10 9.228 8.578 7.990 7.457 6.971 6.528 6.123	1.522 - 8 1.405 1.301 1.207 1.122 1.045 9.751 - 9 9.115 8.536 8.006
42000 42200 424000 426000 428000 432000 432000 434000 438000	411707 413629 415550 417471 419392 421312 423232 425151 427070 428989	895.77 915.80 935.79 955.76 975.71 995.63 1015.52 1035.40 1055.25 1075.09	436.10 456.13 476.12 496.09 516.04 535.96 555.85 575.73 595.58 615.42	224.50 235.63 246.74 257.83 268.91 279.98 291.03 302.07 313.10 324.12	1.3777 - 5 1.3264 1.2781 1.2326 1.1896 1.1890 1.1106 1.0742 1.0397	4.0685 - 7 3.9169 3.7743 3.6398 3.5129 3.3930 3.2796 5.1722 3.0704 2.9737	1.3597 - 8 1.3091 1.2614 1.2165 1.1741 1.1340 1.0961 1.0602 1.0261 9.9384 - 9	5.751 -10 5.411 5.097 4.808 4.541 4.294 4.065 3.853 3.656	7.521 - 9 7.075 6.665 6.287 5.938 5.615 5.316 5.039 4.781 4.541
440000 442000 444000 446000 450000 452000 452000 454000 458000	430907 432825 434743 436660 438577 440494 442410 444326 446241 448156	1094.91 1114.71 1134.49 1154.26 1174.02 1193.77 1213.50 1233.22 1252.93 1272.63	635.24 655.04 674.82 694.59 714.35 734.10 753.83 773.55 793.26 812.96	335.13 346.13 357.12 368.11 379.08 390.05 401.02 411.97 422.92 433.87	9.7591 - 6 9.4633 9.1818 8.9135 8.6578 8.4136 8.1804 7.9575 7.7443 7.5402	2.8819 - 7 2.7945 2.7114 2.6322 2.5566 2.4845 2.4857 2.3499 2.2869	9.6315 - 9 9.3596 9.0617 8.7970 8.5445 8.3036 8.0735 7.8535 7.6430 7.4416	3.301 -10 3.142 2.993 2.853 2.722 2.600 2.485 2.376 2.275 2.179	4.317 - 9 4.108 3.913 3.731 3.560 3.399 3.249 3.107 2.974 2.849
460000 462000 464000 466000 468000 470000 472000 474000 476000	450071 451985 453899 455813 457727 459639 461552 463464 465376 467288	1292.32 1312.00 1331.67 1351.33 1370.98 1390.62 1410.24 1429.86 1449.47 1469.06	832.65 852.33 872.00 891.66 911.31 930.95 950.57 970.19 989.80 1009.39	444.81 455.74 466.66 477.59 488.50 499.41 510.32 521.21 532.11 542.99	7.3446 - 6 7.1571 6.9772 6.8046 6.6387 6.4793 6.3261 6.1786 6.0366 5.8998	2.1689 - 7 2.1135 2.0604 2.0094 1.9604 1.9133 1.8681 1.8245 1.7826	7.2485 - 9 7.0635 6.8860 6.7156 6.5519 6.3946 6.2433 6.0978 5.9576 5.8226	2.088 -10 2.003 1.923 1.847 1.775 1.706 1.642 1.581 1.522 1.467	2.731 - 9 2.619 2.514 2.415 2.321 2.231 2.147 2.067 1.991
480000 482000 484000 486000 490000 492000 494000 498000	469199 471110 473020 474930 476840 478749 480659 482567 484476 486383	1488.64 1508.21 1527.75 1547.30 1566.81 1586.31 1605.80 1620.49 1634.83	1028.97 1048.54 1068.08 1087.63 1107.14 1126.64 1146.13 1160.82 1175.16 1189.49	553.87 564.74 575.60 586.46 597.30 608.13 618.96 627.12 635.09 643.05	5.7679 - 6 5.6408 5.5182 5.3798 5.2855 5.1750 5.0683 4.9647 4.8647	1.7033 - 7 1.6657 1.6295 1.5946 1.5608 1.5282 1.4967 1.4661 1.4365 1.4078	5.6925 - 9 5.5671 5.4460 5.3292 5.2164 5.1074 5.0020 4.9000 4.8010 4.7050	1.415 -10 1.365 1.317 1.272 1.229 1.188 1.148 1.114 1.081	1.850 - 9 1.785 1.722 1.663 1.667 1.553 1.502 1.457 1.414
50000 50200 50400 50600 50600 51200 51200 51400 51800	#88291 #90198 #92105 #94012 #95918 #97824 #9729 501634 503539 5054#3	1663.48 1677.78 1692.06 1706.31 1720.54 1734.75 1748.93 1763.08 1777.21	1203.81 1218.11 1232.39 1246.64 1260.87 1275.08 1289.26 1303.41 1317.54	651-01 658-95 666-88 674-80 682-70 690-60 698-48 706-34 714-19 722-02	4.6728 - 6 4.5810 4.4919 4.4053 4.3211 4.2392 4.1596 4.0822 4.0069 3.9337	1.3799 - 7 1.3528 1.3265 1.3009 1.2760 1.2518 1.2283 1.2055 1.1832	4.6117 - 9 4.5211 4.4331 4.3477 4.2646 4.1838 4.1053 4.0289 3.9545 3.8822	1.020 -10 9.905 -11 9.625 9.355 9.095 8.845 8.603 8.370 8.146 7.929	1.333 - 9 1.295 1.259 1.223 1.189 1.157 1.125 1.095 1.065

TABLE IV.—Continued

GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	7	emperatur	е		Pressure		Den	sity
Z, ft	H, ft	Ť, °R	t,°F	t,°C	P, mb	P, in Hg	P P _o	ρ , lb ft ⁻³	ρ/ρο
520000 522000 524000 526000 528000 530000 532000 534000 536000 538000	507347 509251 511154 513057 514960 516862 518764 520666 522567 524468	1805.39 1819.45 1833.47 1844.78 1853.70 1862.62 1871.52 1880.40 1889.27	1345.72 1359.78 1373.80 1385.11 1394.03 1402.95 1411.85 1420.73 1429.60 1438.47	729.85 737.65 745.44 751.73 756.68 761.64 766.58 771.52 776.45 781.37	3.8623 - 6 3.7929 3.7253 3.6594 3.5951 3.5322 3.4708 3.4108 3.3521 3.2948	1.1405 - 7 1.1200 1.1001 1.0806 1.0616 1.0431 1.0249 1.0072 9.8988 - 8 9.7295	3.8118 - 9 3.7433 3.6766 3.6115 3.5480 3.4860 3.4254 3.3662 3.3083 3.2517	7.720 -11 7.518 7.323 7.145 6.981 6.822 6.667 6.517 6.370 6.228	1.009 - 9 9.830 -10 9.575 9.343 9.128 8.920 8.718 8.521 8.330 8.144
540000 542000 544000 546000 548000 550000 552000 554000 558000	526368 528268 530168 532067 533966 535865 537764 539662 541559 543456	1907.00 1915.86 1924.71 1933.58 1942.46 1951.36 1960.28 1969.25 1978.24 1990.64	1447.33 1456.19 1465.04 1473.91 1482.79 1491.69 1500.61 1509.5B 1518.57 1530.97	786.30 791.22 796.14 801.06 806.00 810.94 815.89 820.88 825.87 832.76	3.2388 - 6 3.1840 3.1304 3.0780 3.0268 2.9766 2.9276 2.8796 2.8796 2.8327 2.7867	9.5640 - 8 9.4022 9.2440 9.0893 8.9380 8.7390 8.6452 8.5035 8.3649 8.2293	3.1964 - 9 3.1423 3.0895 3.0377 2.9877 2.9877 2.8893 2.8420 2.7956 2.7503	6.090 -11 5.956 5.825 5.698 5.574 5.453 5.336 5.222 5.111 5.004	7.964 -10 7.788 7.617 7.450 7.289 7.131 6.978 6.829 6.683 6.543
560000 562000 564000 566000 568000 570000 572000 574000 576000 578000	545353 547250 549146 551042 552937 554833 556727 558622 560516 562410	1996-25 2001-86 2007-46 2013-05 2018-63 2024-21 2029-78 2035-34 2040-89 2046-43	1536.58 1542.19 1547.79 1553.38 1558.96 1564.54 1570.11 1575.67 1581.22 1586.76	835.88 838.99 842.11 845.21 848.31 851.41 854.50 857.59 860.68 863.75	2.7417 - 6 2.6976 2.6544 2.6120 2.5704 2.5297 2.4897 2.4505 2.4121 2.3744	8.0964 - 8 7.9661 7.8384 7.7132 7.5905 7.4701 7.3521 7.2364 7.1228 7.0115	2.7059 - 9 2.6624 2.6197 2.5778 2.5368 2.4966 2.4571 2.4185 2.3805 2.3433	4.906 -11 4.810 4.716 4.625 4.535 4.363 4.279 4.198 4.118	6.415 -10 6.290 6.167 6.048 5.931 5.817 5.705 5.596 5.489 5.385
580000 582000 584000 586000 590000 592000 594000 594000 598000	564303 566196 568089 569981 571873 573765 575656 577547 579437 581328	2051.96 2057.49 2063.01 2068.52 2074.02 2079.51 2085.00 2090.47 2095.94 2101.40	1592-29 1597-82 1603-34 1608-85 1614-35 1619-84 1625-33 1630-80 1636-27 1641-73	866.83 869.90 872.96 876.03 879.08 882.13 885.18 888.22 891.26	2.3374 - 6 2.3011 2.2655 2.2306 2.1964 2.1964 2.1298 2.0974 2.0974 2.0957	6.9023 - 8 6.7952 6.6901 6.5870 6.4859 6.3866 6.2892 6.1937 6.0999 6.0078	2.3068 - 9 2.2710 2.2359 2.2014 2.1676 2.1345 2.1019 2.0700 2.0386 2.0079	4.040 -11 3.964 3.890 3.817 3.746 3.676 3.608 3.541 3.476 3.413	5.283 -10 5.184 5.086 4.991 4.898 4.807 4.718 4.631 4.546 4.462
600000 602000 604000 606000 610000 612000 614000 616000 618000	583217 585107 586996 588885 590773 592661 594549 596437 598324 600210	2106.85 2112.30 2117.73 2123.16 2128.57 2133.98 2139.39 2144.78 2150.16 2155.54	1647.18 1652.63 1658.06 1663.49 1668.90 1674.31 1677.72 1685.11 1690.49 1695.87	897.32 900.35 903.37 906.38 909.39 912.40 915.40 918.39 921.38 924.37	2.0039 - 6 1.9738 1.94%4 1.9154 1.8870 1.8591 1.8591 1.8317 1.8048 1.7784	5.9175 - 8 5.8288 5.7417 5.6563 5.5723 5.4900 5.4091 5.3296 5.2517 5.1751	1.9777 - 9 1.9480 1.9189 1.8904 1.8623 1.8348 1.8078 1.7812 1.7552 1.7296	3.350 ~11 3.289 3.230 3.171 3.114 3.058 3.003 2.950 2.897 2.846	4.381 -10 4.301 4.223 4.147 4.072 3.999 3.927 3.857 3.789 3.721
62000 62200 624000 626000 628000 630000 632000 634000 636000 638000	602097 603983 605868 607753 609638 611523 613407 615291 617175 619058	2160-91 2166-26 2170-99 2174-37 2177-75 2181-13 2184-49 2187-85 2191-21 2194-56	1701.24 1706.59 1711.32 1714.70 1718.08 1721.46 1724.82 1728.18 1731.54	927.35 930.33 932.95 934.83 936.71 938.59 940.46 942.32 944.19 946.05	1.7270 - 6 1.7020 1.6774 1.6532 1.6295 1.60061 1.5832 1.5606 1.5384 1.5165	5.0998 - 8 5.0259 4.9534 4.8820 4.8119 4.7429 4.6751 4.6051 4.5428 4.1783	1.7044 - 9 1.6797 1.6555 1.6316 1.6082 1.5851 1.5625 1.5425 1.5483 1.4967	2.796 -11 2.746 2.699 2.654 2.650 2.567 2.525 2.483 2.442 2.402	3.656 -10 3.559 3.529 3.471 3.413 3.357 3.301 3.247 3.194 3.141
64000 64200 644000 64600 64800 65000 65200 654000 656000 658000	6209%1 622823 62%705 626587 628468 630349 632230 63%111 635991 637870	2197.90 2201.24 2204.57 2207.90 2211.22 2214.53 2217.84 2221.14 2224.44 2227.73	1738-23 1741-57 1744-90 1748-23 1751-55 1754-86 1758-17 1761-47 1764-77 1768-06	947.91 949.76 951.61 953.46 955.31 957.15 958.98 960.82 962.65 964.48	1.4951 - 6 1.4739 1.4532 1.4327 1.4126 1.3928 1.3734 1.3543 1.3354 1.3169	4.4149 - 8 4.3525 4.2912 4.2308 4.1715 4.1131 4.0557 3.9992 3.9436 3.8889	1.4755 - 9 1.4547 1.4342 1.4140 1.3941 1.3746 1.3554 1.3366 1.3180 1.2997	2.363 -11 2.324 2.287 2.249 2.213 2.177 2.142 2.108 2.074 2.041	3.090 -10 3.039 2.990 2.941 2.894 2.847 2.801 2.756 2.712 2.669
660000 662000 664000 666000 670000 672000 674000 676000 678000	639750 641629 643507 645385 647263 649141 651018 652895 654772 656648	2231.01 2234.29 2237.56 2240.83 2244.08 2247.34 2250.58 2253.82 2257.06 2260.29	1771.3% 1774.62 1777.89 1781.16 1784.41 1787.67 1790.91 1794.15 1797.39 1800.62	966.30 968.12 969.94 971.75 973.56 975.37 977.17 978.97 980.77 982.56	1.2987 - 6 1.2808 1.2632 1.2458 1.2287 1.2119 1.1954 1.1791 1.1631	3.8351 - 8 3.7822 3.7301 3.6789 3.6285 3.5789 3.5300 3.4820 3.4347 3.3882	1.2817 - 9 1.2640 1.2466 1.2295 1.2127 1.1961 1.1798 1.1637 1.1479 1.1324	2.008 -11 1.976 1.945 1.914 1.884 1.854 1.825 1.796 1.768	2.626 -10 2.584 2.543 2.503 2.463 2.424 2.386 2.349 2.312 2.276
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TABLE IV.- Continued GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	Т	emperatur	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in. Hg	P P _o	ρ, lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
680000 682000 684000 686000 690000 692000 694000 696000	658524 660399 662274 664149 666023 667897 669771 671645 673518 675390	2263.51 2266.72 2260.93 2273.13 2276.33 2279.52 2282.70 2285.88 2289.05 2292.22	1803.84 1807.05 1810.26 1813.46 1816.66 1819.85 1823.03 1826.21 1829.38 1832.55	984.35 986.14 987.92 989.70 991.48 993.25 995.02 996.78 998.55 1000.30	1.1319 - 6 1.1166 1.1016 1.0868 1.0722 1.0579 1.0438 1.0299 1.0163 1.0028	3.3424 - 8 3.2973 3.2530 3.2093 3.1063 3.1240 3.0824 3.0414 3.0010 2.9613	1.1171 - 9 1.1020 1.0872 1.0726 1.0582 1.0441 1.0302 1.0165 1.0030 9.8969 -10	1.713 -11 1.686 1.660 1.634 1.609 1.584 1.560 1.536 1.512	2.240 -10 2.205 2.171 2.137 2.104 2.072 2.040 2.008 1.978
700000 702000 704000 706000 708000 712000 714000 714000 718000	677263 679135 681006 682878 684749 686619 686619 690359 692229 694098	2295.37 2298.53 2301.67 2304.81 2307.94 2311.07 2314.19 2317.30 2320.41 2323.51	1835.70 1838.86 1842.00 1845.14 1848.27 1851.40 1854.52 1857.63 1860.74 1863.84	1002.06 1003.81 1005.56 1007.30 1009.04 1010.78 1012.51 1014.24 1015.97 1017.69	9.8955 - 7 9.7651 9.6366 9.5102 9.3856 9.2630 9.1423 9.0234 8.9062 8.7909	2.9221 - 8 2.8836 2.8457 2.8083 2.7716 2.7354 2.6997 2.6646 2.6300 2.5960	9.7661 -10 9.6374 9.5106 9.3858 9.2629 9.1419 9.0227 8.9054 8.7898 8.6760	1.467 -11 1.444 1.422 1.401 1.380 1.359 1.338 1.318 1.298	1.918 -10 1.888 1.860 1.832 1.804 1.777 1.750 1.724 1.698
720000 722000 724000 724000 726000 730000 732000 734000 736000 738000	695967 697836 699704 701572 703439 705306 707173 709040 710906 712771	2326.60 2329.69 2332.77 2335.84 2338.91 2341.97 2345.02 2348.07 2351.11 2354.15	1866.93 1870.02 1873.10 1876.17 1876.24 1882.30 1885.35 1888.40 1891.44 1894.48	1019.41 1021.12 1022.83 1024.54 1026.24 1027.94 1027.64 1033.02 1033.02	8.6773 - 7 8.5655 8.4553 8.3468 8.2398 8.1345 8.0308 7.9286 7.8280 7.7288	2.5624 - 8 2.5294 2.4968 2.4648 2.4632 2.4021 2.3715 2.3113 2.3116 2.2823	8.5639 -10 8.4535 8.3447 8.2376 8.1321 8.0282 7.9258 7.8250 7.7256 7.6277	1.260 -11 1.241 1.223 1.204 1.187 1.169 1.152 1.135 1.118	1.647 -10 1.623 1.599 1.575 1.552 1.529 1.506 1.484 1.462
740000 742000 744000 746000 746000 750000 752000 754000 756000	714637 716502 718367 720231 722095 723959 725822 727685 729548 731410	2357.17 2360.19 2363.21 2366.22 2369.22 2372.21 2375.20 2378.18 2360.50 2382.53	1897.50 1900.52 1903.54 1906.55 1909.55 1912.54 1915.53 1918.51 1920.83 1922.86	1036.39 1038.07 1039.74 1041.42 1043.08 1044.75 1046.41 1048.06 1049.35 1050.48	7.6311 - 7 7.5349 7.4400 7.3466 7.2545 7.1638 7.0744 6.9863 6.8995 6.8139	2.2535 - 8 2.2250 2.1970 2.1694 2.1423 2.1155 2.0891 2.0631 2.0374 2.0121	7.5313 -10 7.4363 7.3427 7.2505 7.1596 7.0701 6.9819 6.8093 6.8093	1.086 -11 1.070 1.054 1.039 1.024 1.009 9.947 -12 9.804 9.666	1.420 -10 1.399 1.379 1.359 1.339 1.320 1.301 1.282 1.264
760000 762000 764000 766000 766000 770000 772000 774000 778000	733272 735134 736995 738856 740716 742577 744436 746296 748155 750014	2384.56 2386.58 2388.60 2390.62 2392.62 2394.62 2396.62 2398.61 2400.60 2402.58	1924.89 1926.91 1928.93 1930.95 1932.95 1934.95 1936.95 1936.95 1940.93 1942.91	1051.61 1052.73 1053.85 1054.97 1056.08 1057.20 1058.31 1059.41 1060.52 1061.62	6.7295 - 7 6.0463 6.5643 6.4835 6.4835 6.4037 6.3251 6.2476 6.1712 6.0958 6.0215	1.9872 - 8 1.9627 1.9384 1.9146 1.8910 1.8678 1.8449 1.8223 1.8001	6.6415 -10 6.5594 6.4785 6.3987 6.3200 6.2424 6.1659 6.0905 6.0161 5.9427	9.398 -12 9.268 9.139 9.012 8.888 8.765 8.644 8.525 8.408 8.293	1.229 -10 1.212 1.195 1.178 1.162 1.146 1.130 1.115 1.099
780000 782000 784000 786000 786000 790000 792000 794000 794000 798000	751873 753731 755589 757446 759303 761160 763017 764873 766728 768584	2404.55 2406.52 2408.49 2410.44 2412.40 2414.34 2416.29 2418.22 2420.15 2422.08	1944.88 1946.85 1948.82 1950.77 1952.73 1954.67 1956.62 1958.55 1960.48 1962.41	1062-71 1063-81 1064-90 1065-99 1067-07 1068-15 1069-23 1070-31 1071-38 1072-45	5.9482 - 7 5.8759 5.8047 5.7344 5.6651 5.5967 5.5293 5.4628 5.3972 5.3325	1.7565 - 8 1.7352 1.7141 1.6934 1.6729 1.6527 1.6328 1.6132 1.5938 1.5747	5.8704 -10 5.7991 5.7288 5.6594 5.55910 5.5235 5.4570 5.3914 5.3266 5.2628	8.179 -12 8.067 7.957 7.849 7.742 7.637 7.533 7.431 7.331	1.070 -10 1.055 1.040 1.026 1.012 9.986 -11 9.717 9.586 9.457
800000 805000 810000 815000 825000 835000 835000 845000	770439 775075 779709 784341 788971 793599 798224 802848 807469 812088	2424.00 2428.78 2433.52 2438.23 2442.90 2447.54 2452.15 2456.72 2461.26 2465.76	1964.33 1969.11 1973.85 1978.56 1983.23 1987.87 1992.48 1997.05 2001.59 2006.09	1073.52 1076.17 1078.81 1081.42 1084.02 1086.60 1089.16 1091.70 1094.22 1096.72	5.2687 - 7 5.1130 4.9625 4.8170 4.6764 4.5405 4.4090 4.2819 4.1590 4.0400	1.5559 - 8 1.5099 1.4654 1.4225 1.3809 1.3408 1.3020 1.2644 1.2281 1.1930	5.1998 -10 5.0461 4.8976 4.7540 4.6153 4.4811 4.3514 4.2259 4.1046 3.9872	7.135 -12 6.898 6.669 6.450 6.238 6.034 5.838 5.648 5.466 5.290	9.330 -11 9.020 8.721 8.434 8.157 7.890 7.633 7.386 7.147 6.918
850000 855000 860000 870000 875000 885000 885000 890000 895000	816705 821320 825933 830543 835152 839758 844362 848964 853564 858162	2470.23 2474.67 2479.07 2483.43 2487.77 2492.07 2496.33 2500.56 2504.76 2508.93	2010.56 2015.00 2019.40 2023.76 2028.10 2032.40 2036.66 2040.89 2045.09 2049.26	1099.20 1101.66 1104.11 1106.54 1111.33 1113.70 1116.05 1118.38 1120.70	3.9250 - 7 3.8136 3.7059 3.6016 3.5007 3.4030 3.3084 3.2168 3.1281 3.0421	1.1590 - 8 1.1262 1.0944 1.0636 1.0338 1.0049 9.7697 - 9 9.4991 9.2371 8.9834	3.8736 -10 3.7638 3.6574 3.55545 3.4549 3.3585 3.2651 3.1747 3.0872 3.0023	5.121 -12 9.957 9.800 9.648 9.501 9.360 9.224 9.092 3.965 3.842	6.696 -11 6.482 6.276 6.078 5.886 5.701 5.523 5.351 5.185 5.024

TABLE IV.—Continued

GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	7	emperatur	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in. Hg	P _o	ρ , lb ft ⁻³	$\frac{\rho}{\rho_o}$
900000 905000 910000 915000 920000 925000 930000 945000 945000	862758 867352 871943 876533 881120 885705 890289 894870 89449 904025	2513.06 2517.16 2521.22 2525.25 2529.25 2533.22 2537.15 2541.06 2544.92	2053.39 2057.49 2057.49 2061.55 2065.58 2069.58 2073.55 2077.48 2081.39 2081.39 2085.25 2089.09	1122.99 1125.27 1127.53 1129.77 1131.99 1134.19 1136.38 1138.55 1140.70 1142.83	2.9589 - 7 2.8782 2.8001 2.7244 2.6510 2.5798 2.5109 2.4440 2.3792 2.3163	8.7376 - 9 8.4994 8.2687 8.0451 7.8284 7.6183 7.4147 7.2172 7.0258 6.8402	2.9202 -10 2.8406 2.7635 2.6887 2.6163 2.5461 2.4781 2.4781 2.3481 2.2861	3.724 -12 3.610 3.500 3.393 3.290 3.191 3.095 3.002 2.912 2.826	4.870 -11 4.720 4.576 4.437 4.302 4.172 4.047 3.925 3.808 3.695
95000 955000 960000 975000 975000 985000 985000 995000	908600 913173 917743 922312 926878 931442 936004 940564 945122 949678	2552-57 2556-34 2560-08 2563-80 2567-48 2571-13 2574-75 2578-11 2580-17 2582-21	2092.90 2096.67 2100.41 2104.13 2107.81 2111.46 2115.08 2118.44 2120.50 2122.54	1144.94 1147.04 1149.12 1151.18 1153.23 1155.25 1157.26 1159.13 1160.28 1161.41	2.2554 - 7 2.1962 2.1389 2.0832 2.0292 1.9768 1.9259 1.8766 1.8286	6.6601 - 9 6.4855 6.3161 6.1517 5.9922 5.8374 5.6872 5.5415 5.3999 5.2624	2.2259 -10 2.1675 2.1109 2.0560 2.0027 1.9509 1.9007 1.8520 1.8047 1.7587	2.742 -12 2.661 2.583 2.507 2.434 2.363 2.294 2.228 2.166 2.105	3.585 -11 3.480 3.377 3.278 3.182 3.090 3.000 2.914 2.832 2.752
1000000 1005000 1010000 1015000 1025000 1035000 1035000 1045000	954232 958784 963333 967881 972426 976970 981511 98050 990588 995123	2584.22 2586.21 2588.18 2590.12 2592.04 2593.94 2595.82 2597.67 2599.51 2601.32	2124.55 2126.54 2128.51 2130.45 2132.37 2134.27 2136.15 2138.00 2139.84 2141.65	1162.53 1163.63 1164.73 1165.81 1166.87 1167.93 1168.97 1170.00 1171.02	1.7368 - 7 1.6928 1.6501 1.6086 1.5683 1.5291 1.4910 1.4540 1.4180	5.1288 - 9 4.9990 4.8728 4.7503 4.6312 4.5154 4.4029 4.299 4.2973 4.0839	1.7141 -10 1.6707 1.6286 1.5876 1.5478 1.5091 1.4715 1.4350 1.3994 1.3649	2.046 -12 1.988 1.973 1.879 1.827 1.777 1.728 1.680 1.634 1.590	2.675 -11 2.600 2.528 2.457 2.389 2.323 2.259 2.197 2.137 2.079
1050000 1055000 1060000 1065000 1075000 1075000 1085000 1095000	999656 1004187 1008715 1013242 1017767 1022290 1026810 1031329 1035845 1040360	2603.11 2604.88 2606.63 2608.36 2610.07 2611.77 2613.44 2615.10 2616.73 2618.35	2143.44 2145.21 2146.96 2148.69 2150.40 2152.10 2153.77 2155.43 2157.06 2158.68	1173.02 1174.01 1174.98 1175.94 1176.89 1177.83 1178.76 1179.68 1180.59	1.3489 - 7 1.3158 1.2836 1.2523 1.2219 1.1923 1.1635 1.1354 1.1082 1.0816	3.9834 - 9 3.8856 3.7906 3.6982 3.6083 3.5208 3.4357 3.3530 3.2724 3.1941	1.3313 -10 1.2986 1.2669 1.2360 1.2059 1.1767 1.1483 1.1206	1.547 -12 1.505 1.4625 1.425 1.386 1.313 1.278 1.244 1.211	2.022 -11 1.968 1.914 1.863 1.813 1.764 1.717 1.671 1.627
1100000 1105000 1110000 1115000 1125000 1130000 1135000 1140000 1145000	1044872 1049382 1053891 1058397 1062901 1067403 1071903 1076401 1080897 1085391	2619.95 2621.54 2623.11 2624.66 2626.19 2627.72 2629.22 2630.71 2632.19 2633.65	2160.28 2161.87 2163.44 2164.99 2166.52 2169.55 2169.55 2171.04 2172.52 2173.98	1182.38 1183.26 1184.13 1184.99 1185.85 1186.69 1187.53 1188.36 1189.18	1.0558 - 7 1.0307 1.0062 9.8242 - 8 9.5924 9.3668 9.1471 8.9333 8.7250 8.5222	3.1178 - 9 3.0436 2.9714 2.9011 2.8326 2.7660 2.7012 2.6380 2.5765 2.5166	1.0420 -10 1.0172 9.9306 -11 9.6957 9.4670 9.2443 9.0275 8.8165 8.6109 8.4108	1.179 -12 1.148 1.118 1.089 1.060 1.033 1.006 9.801 -13 9.548 9.303	1.542 -11 1.501 1.462 1.424 1.387 1.351 1.316 1.282 1.249
1150000 1155000 1160000 1165000 11770000 1175000 1180000 1190000 1195000	1089883 1094373 1098861 1103346 1107830 1112312 1116792 1121269 1125745 1130218	2635.10 2636.53 2637.95 2639.36 2640.76 2642.15 2643.52 2644.89 2646.24 2647.58	2175.43 2176.86 2178.28 2177.69 2181.09 2182.48 2183.85 2185.22 2186.57 2187.91	1190.79 1191.59 1192.38 1193.16 1193.94 1194.71 1195.47 1196.23 1196.98 1197.73	8.3247 - 8 8.1324 7.9450 7.7625 7.5847 7.4115 7.2427 7.0783 6.9180 6.7619	2.4583 - 9 2.4015 2.3462 2.2923 2.2398 2.1886 2.1388 2.0902 2.0429 1.9968	8.2159 -11 8.0260 7.8411 7.6610 7.4855 7.3146 7.1480 6.9857 6.8276 6.6734	9.064 -13 8.833 8.607 8.389 8.176 7.970 7.769 7.574 7.384 7.199	1.185 -11 1.155 1.126 1.097 1.069 1.042 1.016 9.903 -12 9.655 9.414
1200000 1205000 1210000 1215000 1225000 1225000 1235000 1235000 1245000	1134690 1139159 1143627 1148072 1152556 1157017 1161476 1165934 1170389 1174842	2648.92 2650.24 2651.56 2652.87 2654.17 2656.74 2656.74 2658.02 2659.30 2660.56	2189.25 2190.57 2191.89 2193.20 2194.50 2195.79 2197.07 2198.35 2199.63 2200.89	1198.47 1199.21 1199.94 1200.66 1201.39 1202.11 1202.82 1203.53 1204.24 1204.94	6.6096 - 8 6.4613 6.3167 6.1757 6.0383 5.9043 5.7737 5.6463 5.5220 5.4009	1.9518 - 9 1.9080 1.8653 1.8237 1.7831 1.7435 1.7050 1.6673 1.6307	6.5232 -11 6.3768 6.2341 6.0950 5.9593 5.8271 5.6982 5.5724 5.4498 5.3303	7.020 -13 6.846 6.676 6.511 6.351 6.195 6.043 5.895 5.752 5.612	9.180 -12 8.952 8.730 8.514 8.304 8.101 7.902 7.709 7.521 7.339
1250000 1255000 1260000 1265000 1270000 1275000 1285000 1290000 1295000	1179294 1183743 1188190 1192635 1197079 1201520 1205959 1210396 1214832 1219265	2661.82 2663.08 2664.33 2665.58 2666.83 2668.07 2669.31 2670.54 2671.78	2202.15 2203.41 2204.66 2205.91 2207.16 2208.40 2210.87 2212.11 2213.34	1205.64 1206.34 1207.04 1207.73 1208.42 1209.11 1209.80 1210.48 1211.17	5.2827 - 8 5.1675 5.0551 4.9454 4.8384 4.7341 4.6322 4.5328 4.4359 4.3412	1.5600 - 9 1.5260 1.4928 1.4604 1.4288 1.3980 1.3679 1.3385 1.3099	5.2137 -11 5.0999 4.9890 4.8807 4.7752 4.6722 4.5716 4.4736 4.3779 4.2845	5.476 -13 5.344 5.215 5.090 4.968 4.849 4.734 4.621 4.512 4.405	7.161 -12 6.988 6.820 6.656 6.496 6.341 6.190 6.043 5.900 5.760

TABLE IX.—Continued
GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	т	emperatur	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _P °	ρ, lb ft ⁻³	$\frac{\rho}{\rho_{o}}$
1300000 1305000 1315000 1315000 1325000 1325000 1335000 1345000 1345000	1223696 1228125 1232552 1232578 1241401 1245822 1250241 1254658 1259074 1263487	2674.24 2675.47 2676.70 2677.23 2677.15 2677.07 2676.99 2676.87 2676.87	2214.57 2215.80 2217.03 2217.56 2217.40 2217.40 2217.32 2217.26 2217.20 2217.15	1212-54 1213-22 1213-91 1214-20 1214-15 1214-17 1214-07 1214-03 1214-00 1213-97	4.2489 - 8 4.1587 4.0708 3.9849 3.9010 3.8190 3.7390 3.6608 3.5844 3.5098	1.2547 - 9 1.2281 1.2021 1.1767 1.1520 1.1278 1.1041 1.0810 1.0585 1.0364	4.1933 -11 4.1044 4.0175 3.9328 3.8500 3.7691 3.6901 3.6129 3.5376 3.4639	4.301 -13 4.200 4.102 4.007 3.915 3.826 3.739 3.654 3.572 3.491	5.625 -12 5.492 5.364 5.240 5.120 5.120 5.103 4.890 4.779 4.670 4.565
135000 1355000 1365000 1365000 1375000 1375000 1385000 1395000	1267898 1272307 1276715 1281120 1285523 1289725 1294324 1298721 1303117 1307510	2676.77 2676.74 2676.71 2676.69 2676.68 2676.69 2676.70 2676.72 2676.75 2676.75	2217.10 2217.07 2217.04 2217.02 2217.01 2217.03 2217.05 2217.08 2217.12	1213.95 1213.93 1213.91 1213.90 1213.90 1213.90 1213.92 1213.93 1213.93	3.4369 - 8 3.3657 3.2961 3.2281 3.1616 3.0967 3.0332 2.9712 2.9106 2.8513	1.0149 - 9 9.9389 r10 9.7334 9.5326 9.3363 9.1446 8.9572 8.7740 8.5950 8.4200	3.3920 -11 3.3217 3.2530 3.1859 3.1203 3.0562 2.9936 2.99324 2.8725 2.8140	3.412 -13 3.336 3.261 3.188 3.116 3.047 2.979 2.913 2.848 2.786	4.462 -12 4.362 4.264 4.168 4.075 3.998 3.896 3.899 3.725 3.642
1400000 1405000 1415000 1415000 1425000 1430000 1435000 1445000 1445000	1311902 1316291 1320679 1325064 1325948 1333829 1338209 1342586 1346962 1351336	2676.85 2676.91 2677.08 2677.19 2677.30 2677.43 2677.58 2677.73 2677.73	2217.18 2217.24 2217.32 2217.52 2217.52 2217.63 2217.76 2217.79 2218.06 2218.23	1213.99 1214.02 1214.07 1214.12 1214.18 1214.24 1214.31 1214.39 1214.48	2.7934 - 8 2.7368 2.6814 2.6273 2.5744 2.5227 2.4721 2.4227 2.3743 2.3270	8.2490 -10 8.0817 7.9183 7.7585 7.6023 7.4495 7.3002 7.1542 7.0114 6.8717	2.7569 -11 2.7010 2.6464 2.5930 2.5408 2.4897 2.4897 2.43910 2.3433 2.2966	2.724 -13 2.664 2.606 2.549 2.493 2.438 2.385 2.334 2.283 2.283	3.562 -12 3.484 3.407 3.333 3.260 3.189 3.119 3.051 2.985 2.921
1450000 1455000 1460000 1465000 1475000 1475000 1485000 1495000 1495000	1355708 1360077 1364445 1368811 1373175 1377537 1381897 1386255 1390611 1394965	2678.09 2678.29 2678.51 2678.74 2678.99 2679.25 2679.53 2679.83 2680.15 2680.48	2218.42 2218.62 2218.84 2219.07 2219.32 2219.58 2219.86 2220.16 2220.48	1214.68 1214.79 1214.91 1215.04 1215.18 1215.32 1215.48 1215.65 1215.82 1216.00	2.2808 - 8 2.2356 2.1913 2.1481 2.1057 2.0643 2.0238 1.9842 1.9455 1.9075	6.7352 -10 6.6016 6.4710 6.3432 6.2182 6.0960 5.9764 5.87449 5.6330	2.2510 -11 2.2063 2.1627 2.1200 2.0782 2.0373 1.9974 1.9583 1.9200 1.8826	2.185 -13 2.138 2.092 2.0947 2.0047 2.004 1.961 1.919 1.878 1.838 1.799	2.858 -12 2.796 2.736 2.677 2.620 2.564 2.509 2.456 2.404 2.353
1500000 1505000 1510000 1515000 1525000 1525000 1535000 1535000 1545000	1399317 1403668 1408016 1412362 14123707 1425390 1425390 1425390 1429728 1434065 1438400	2680.83 2681.19 2681.58 2681.98 2682.40 2682.84 2683.78 2683.78 2684.27 2684.79	2221.16 2221.52 2221.91 2222.31 2222.73 2223.17 2223.63 2224.11 2224.60 2225.12	1216.20 1216.40 1216.61 1216.84 1217.07 1217.32 1217.57 1217.84 1218.11	1.8704 - 8 1.8341 1.7986 1.7639 1.7298 1.6986 1.6640 1.6321 1.6009 1.5703	5.5234 -10 5.4162 5.3113 5.2087 5.1082 5.0099 4.9137 4.8196 4.7274 4.6372	1.8460 -11 1.8102 1.7751 1.7408 1.7072 1.6744 1.6422 1.6108 1.5800 1.5498	1.761 -13 1.724 1.688 1.653 1.618 1.584 1.551 1.519 1.487 1.456	2.303 -12 2.255 2.207 2.161 2.116 2.071 2.028 1.986 1.945 1.904
1550000 1555000 1560000 1565000 1575000 1575000 1585000 1585000 1595000	1442733 1447063 1451392 1455719 1460044 1464367 1468689 1473008 1477325 1481641	2685.32 2685.88 2686.45 2687.67 2688.30 2688.96 2689.64 2690.34	2225.65 2226.21 2226.78 2227.38 2228.00 2228.63 2229.29 2229.97 2230.67 2231.39	1218.70 1219.01 1219.32 1219.66 1220.00 1220.35 1220.72 1221.09 1221.48 1221.88	1.5404 - 8 1.5112 1.4825 1.4545 1.4570 1.4001 1.3738 1.3480 1.3228 1.2981	4.5489 -10 4.4625 4.3779 4.2951 4.2140 4.1346 4.0569 3.9808 3.9062 3.8333	1.5203 -11 1.4914 1.4631 1.4355 1.4084 1.3818 1.3558 1.3304 1.3055 1.2811	1.426 -13 1.397 1.368 1.340 1.312 1.285 1.259 1.234 1.208 1.184	1.865 -12 1.826 1.789 1.752 1.716 1.681 1.647 1.613 1.580 1.548
1600000 1605000 1610000 1615000 1625000 1625000 1635000 1635000 1645000	1485954 1490266 1494575 1498883 1503189 1507493 1511795 1516095 1520393 1524689	2691.80 2692-57 2693.35 2694.16 2694.99 2695.84 2696-71 2697.61 2698.52 2698.06	2232.13 2232.90 2233.68 2234.49 2235.32 2236.17 2237.04 2237.94 2238.85 2238.39	1222.30 1222.72 1223.16 1223.60 1224.07 1224.54 1225.02 1225.52 1226.03 1225.77	1.2739 - 8 1.2502 1.2270 1.2042 1.1820 1.1602 1.1388 1.1179 1.0974	3.7618 -10 3.6918 3.6233 3.55561 3.4904 3.4260 3.3629 3.3011 3.2406 3.1813	1.2572 -11 1.2338 1.2109 1.1885 1.1665 1.1450 1.1239 1.1033 1.0830 1.0632	1.160 -13 1.136 1.113 1.091 1.069 1.048 1.027 1.006 9.861 -14	1.517 -12 1.486 1.456 1.427 1.398 1.370 1.342 1.316 1.289
1650000 1655000 1660000 1665000 1670000 1675000 1685000 1685000 1695000	1528983 1533276 1537566 1541855 1546142 1550426 1554709 1558990 1563269 1567546	2697.50 2696.96 2696.45 2695.97 2695.51 2695.08 2694.30 2693.94 2693.62	2237.83 2237.29 2236.78 2236.30 2235.84 2235.91 2235.01 2234.63 2234.27 2233.95	1225.46 1225.16 1224.88 1224.61 1224.36 1224.12 1223.89 1223.68 1223.49 1223.30	1.0576 - 8 1.0383 1.0194 1.0008 9.8266 - 9 9.6484 9.4736 9.3023 9.1343 8.9696	3.1231 -10 3.0661 3.0103 2.9555 2.9018 2.8492 2.7476 2.7470 2.6487	1.0438 -11 1.0247 1.0061 9.8775 -12 9.6981 9.5222 9.3497 9.1806 9.0148 8.8523	9.482 -14 9.299 9.120 8.945 8.773 8.605 8.440 8.278 8.120 7.965	1.240 -12 1.216 1.193 1.170 1.147 1.125 1.104 1.083 1.062

TABLE IV — Continued

GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	7	emperatur	e		Pressure		Den	sity
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _P °	ρ, lb ft ⁻³	<u>ρ</u> ρ _o
1700000 1705000 1710000 1710000 1720000 1725000 1730000 1740000 1745000	1571822 1576095 1580367 1584636 1588904 1593170 1597434 1601696 1605956 1610214	2693.32 2693.04 2692.79 2692.57 2692.37 2692.20 2692.05 2691.93 2691.83	2233.65 2233.37 2233.12 2232.90 2232.70 2232.53 2232.38 2232.26 2232.16 2232.09	1223.14 1222.98 1222.85 1222.72 1222.61 1222.52 1222.43 1222.37 1222.31 1222.27	8.8081 - 9 8.497 8.4944 8.3422 8.1929 8.0464 7.9029 7.7620 7.6239 7.4885	2.6010 -10 2.5543 2.5084 2.4634 2.4194 2.3761 2.3337 2.2921 2.2513 2.2113	8.6929 -12 8.5366 8.3834 8.2331 8.0857 7.9412 7.7995 7.6605 7.5242 7.3906	7.814 -14 7.665 7.520 7.377 7.237 7.101 6.967 6.835 6.707 6.581	1.022 -12 1.002 -13 9.833 -13 9.647 9.285 9.110 8.938 8.770 8.605
175000 175500 175500 176000 176500 177000 1775000 178000 1785000 1795000	1614470 1618725 1622977 1627228 1631477 1635724 1639969 1644212 1648453 1652693	2691.71 2691.69 2691.70 2691.72 2691.78 2691.85 2691.95 2692.08 2692.22 2692.39	2232.04 2232.02 2232.03 2232.05 2232.11 2232.18 2232.28 2232.41 2232.55 2232.72	1222.25 1222.23 1222.24 1222.25 1222.28 1222.32 1222.32 1222.35 1222.53 1222.62	7.3556 - 9 7.2253 7.0975 6.9722 6.8492 6.7286 6.6103 6.4942 6.3804 6.2687	2.1721 -10 2.1336 2.0959 2.0589 2.0226 1.9870 1.9520 1.9177 1.8841 1.8511	7.259% -12 7.1309 7.0047 6.8810 6.7596 6.6406 6.5238 6.4093 6.2969 6.1867	6.457 -14 6.336 6.218 6.101 5.987 5.876 5.767 5.659 5.554	8.443 -13 8.285 8.130 7.978 7.829 7.684 7.541 7.400 7.263 7.129
1800000 1805000 1810000 1815000 1825000 1835000 1835000 1845000	1656931 1661166 1665400 1669632 1673862 1678090 1682317 1686541 1690764 1694985	2692.59 2693.61 2693.05 2693.31 2693.60 2693.90 2694.23 2694.59 2694.56	2232.92 2233.1h 2233.38 2233.6h 2233.63 2234.23 2234.23 2234.92 2235.29 2235.68	1222.73 1222.85 1222.99 1223.13 1223.29 1223.46 1223.65 1223.84 1224.05 1224.27	6.1591 - 9 6.0516 5.9461 5.8426 5.7411 5.6414 5.5437 5.4477 5.3536 5.2612	1.8188 -10 1.7870 1.7559 1.7253 1.6953 1.6659 1.6370 1.6087 1.5809	6.0785 -12 5.9724 5.8683 5.7662 5.6660 5.5677 5.4712 5.3765 5.2836 5.1924	5.351 -14 5.252 5.155 5.060 4.967 4.786 4.786 4.699 4.613	6.997 -13 6.868 6.741 6.617 6.895 6.376 6.259 6.144 6.032 5.922
185000 1855000 1860000 1860000 1870000 1875000 1880000 1885000 1895000	1699203 1703421 1707636 1711849 1716061 1720270 1724478 1728684 1732888 1737090	2695.77 2696.21 2696.66 2697.14 2697.64 2698.15 2698.69 2699.25 2699.82 2700.41	2236.10 2236.54 2236.99 2237.47 2237.97 2238.48 2239.02 2239.58 2240.15 2240.74	1224.50 1224.74 1225.00 1225.26 1225.54 1225.82 1226.12 1226.43 1226.75 1227.08	5.1706 - 9 5.0816 h.994h h.9087 h.8246 h.7421 h.6611 h.5816 h.5036 h.4270	1.5269 -10 1.5006 1.4748 1.4495 1.4495 1.4003 1.3764 1.3530 1.3299	5.1030 -12 5.0152 4.9291 4.8445 4.7615 4.6801 4.6002 4.5217 4.4447 4.3691	4.446 - 14 4.365 4.286 4.208 4.132 3.957 3.983 3.981 3.881 3.772	5.814 -13 5.708 5.604 5.502 5.403 5.305 5.209 5.115 5.023 4.932
190000 1905000 191000 1915000 192000 1925000 1935000 194000 1945000	1741290 1745489 1749686 1753880 1758873 1762265 1766454 1770641 1774827 1779011	2701.02 2701.65 2702.30 2702.96 2703.64 2704.33 2705.05 2705.78 2706.52 2707.28	2241.35 2241.98 2242.63 2243.29 2243.97 2244.66 2245.38 2246.11 2246.85 2247.61	1227.42 1227.77 1228.13 1228.87 1229.26 1229.65 1230.06 1230.47 1230.89	4.3518 - 9 4.2780 4.2056 4.1345 4.0647 3.9962 3.9289 3.8629 3.7980 3.7344	1.2851 -10 1.2633 1.2419 1.2209 1.2209 1.1801 1.1602 1.1407 1.1216 1.1028	4.2949 -12 4.2221 4.1506 4.0804 4.0116 3.9439 3.8775 3.8123 3.7483 3.6855	3.704 -14 3.638 3.572 3.508 3.446 3.384 3.324 3.265 3.207 3.150	4.843 -13 4.757 4.671 4.588 4.506 4.425 4.346 4.269 4.193 4.119
1950000 1955000 1960000 1965000 1970000 1975000 1985000 1985000 1995000	1783193 1787373 1791551 1795728 179902 1804075 1808246 1812415 1816582 1820748	2708.05 2708.84 2709.64 2710.46 2711.00 2710.88 2710.78 2710.69 2710.62 2710.56	2248.38 2249.17 2249.97 2250.79 2251.33 2251.21 2251.11 2251.02 2250.95 2250.89	1231.32 1231.76 1232.21 1232.66 1232.96 1232.90 1232.84 1232.79 1232.75 1232.72	3.6718 - 9 3.6105 3.5502 3.4910 3.4329 3.3759 3.3759 3.3198 3.2647 3.2106 3.1575	1.0843 -10 1.0662 1.0484 1.0309 1.0137 9.9689 -11 9.8034 9.6408 9.4810 9.3241	3.6238 -12 3.5633 3.5038 3.8454 3.3880 3.3317 3.2764 3.2220 3.1687 3.1162	3.094 -14 3.039 2.985 2.933 2.881 2.832 2.783 2.735 2.688 2.642	4.046 -13 3.974 3.904 3.835 3.768 3.703 3.639 3.576 3.515 3.454
2000000 2010000 2020000 2030000 2040000 2050000 2060000 2070000 2080000 2090000	1824911 1833233 1841548 1849855 1858155 1866448 1874733 1883011 1891282 1899546	2710.51 2710.44 2710.42 2710.42 2710.49 2710.58 2710.70 2710.84 2711.01 2711.20	2250.84 2250.77 2250.75 2250.77 2250.82 2250.91 2251.03 2251.17 2251.34 2251.33	1232.69 1232.65 1232.64 1232.65 1232.68 1232.73 1232.79 1232.87 1232.97 1233.07	3.1053 - 9 3.0036 2.9055 2.8107 2.7193 2.6310 2.5458 2.4635 2.3840 2.3072	9.1699 -11 8.8697 8.5799 8.3001 8.0301 7.7694 7.5176 7.2746 7.0399 6.8133	3.0647 -12 2.9643 2.8675 2.7740 2.6837 2.5966 2.5125 2.4312 2.35528 2.2771	2.596 -14 2.508 2.423 2.341 2.262 2.186 2.112 2.041 1.973	3.395 -13 3.280 3.168 3.061 2.958 2.858 2.762 2.669 2.580 2.494
2100000 2110000 2120000 2130000 2140000 2150000 2160000 2170000 2180000 2190000	1907803 1916052 1924294 1932529 1940757 1948978 1957192 1965398 1973597 1981789	2711.40 2711.61 2711.83 2712.06 2712.29 2712.52 2712.74 2712.96 2713.16 2713.35	2251.73 2251.94 2252.16 2252.39 2252.62 2252.85 2253.07 2253.29 2253.49 2253.68	1233.18 1233.30 1233.42 1233.55 1233.68 1233.80 1233.93 1234.05 1234.16 1254.27	2.2331 - 9 2.1615 2.0924 2.0256 1.9611 1.8987 1.8385 1.7803 1.7241 1.6697	6.5944 -11 6.3830 6.1788 5.9816 5.7910 5.6069 5.4291 5.2572 5.0911 4.9307	2.2039 -12 2.1333 2.0650 1.9991 1.9354 1.8739 1.8145 1.7570 1.7015	1.843 -14 1.782 1.723 1.666 1.611 1.557 1.506 1.457 1.409 1.363	2.410 -13 2.330 2.253 2.178 2.106 2.036 1.969 1.905 1.842 1.782

TABLE IX.—Concluded GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	hudo.	7		<u> </u>				Density		
Aim	I I	, , , , , , , , , , , , , , , , , , ,	emperatur	c		Pressure		Uen		
Z, ft	H, ft	T, °R	t,°F	t,°C	P, mb	P, in Hg	P _o	ρ , lb ft ⁻³	$\frac{\rho}{\rho_{\rm o}}$	
2200000 2210000 2220000 2230000 2240000 2250000 2260000 2270000 2280000 2290000	1989974 1998152 2006323 2014487 2022643 2030793 2038936 2047071 2055199 2063321	2713.52 2713.67 2713.80 2713.90 2713.97 2714.01 2714.02 2713.99 2713.92 2713.80	2253.85 2254.00 2254.13 2254.23 2254.30 2254.34 2254.35 2254.35 2254.32 2254.32	1234.36 1234.45 1234.52 1234.57 1234.61 1234.63 1234.62 1234.62 1234.58	1.6172 - 9 1.5664 1.5174 1.4699 1.4241 1.3797 1.3369 1.2954 1.2554	4.7756 -11 4.6257 4.4808 4.3407 4.2053 4.0734 3.9478 3.8254 3.7071 3.5926	1.5960 -12 1.5459 1.4975 1.4507 1.4054 1.3617 1.3194 1.2785 1.2389 1.2007	1.318 -14 1.275 1.234 1.194 1.155 1.118 1.081 1.087 1.013 9.805 -15	1.724 -13 1.667 1.613 1.561 1.510 1.461 1.414 1.369 1.325	
2300000 2310000 2320000	2071435 2079543 2087643	2713.65 2713.44 2713.20	2253.98 2253.77 2253.53	1234.43 1234.32 1234.18	1.1791 - 9 1.1429 1.1078	3.4819 -11 3.3749 3.2713	1.1637 -12 1.1279 1.0933	9.491 -15 9.188 8.895	1.241 -13 1.201 1.163	
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Table V

ACCELERATION DUE TO GRAVITY, SPECIFIC WEIGHT, PRESSURE SCALE HEIGHT, NUMBER DENSITY, PARTICLE SPEED, COLLISION FREQUENCY, MEAN FREE PATH, AND MOLECULAR WEIGHT

English Units

Note: A one- or two-digit number (preceded by a plus or minus sign) following the initial entry of each block indicates the power of ten by which that entry and each succeeding entry of that block should be multiplied. A change of power occurring within a block is indicated by a similar notation.

$\begin{array}{c} \text{TABLE } \ \underline{\boldsymbol{\nabla}} \ \underline{} \\ \text{GEOPOTENTIAL } \ \overline{} \$

		Ac cel.	Caraifia	Pressure	N. L. Land D. Land	Dardiala	Callinian	M 6	Malagular
Alti	rude	due to	Specific weight	scale height	Number density	Particle speed	Collision frequency	Mean free path	weight
H, ft	Z, ft	g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec¯'	ν, sec ⁻¹	L, ft	М
-16500 -16400	-16487 -16387	32.225 32.225	3.8934 + 0 3.8831	30763. 30744.	1.1395 +24 1.1365	1588.8 1588.3	1.1535 +10 1.1501	1.3774 - 7 1.3810	28.964 28.964
-16300 -16200	-16287 -16187	32.224 32.224	3.8729 3.8627	30726. 30707.	1.1335 1.1306	1587.9 1587.4	1.1467 1.1434	1.3847 1.3883	28.964 28.964
-16100 -16000	-16088 -15988	32.224	3.8525 3.8423 + 0	30688. 30669.	1.1276	1586.9	1.1400	1.3920	28.964
-15900 -15800 -15700	-15888 -15788 -15688	32.223 32.223 32.223	3.8322 3.8220 3.8119	30651. 30632. 30613.	1.1217 1.1187 1.1157	1585.9 1585.4 1584.9	1.1333 1.1300 1.1267	1.3993 1.4030 1.4067	28.964 28.964 28.964
-15600 -15500	-15588 -15488	32.222 32.222	3.8018 3.7917	30595. 30576.	1.1128	1584.4 1583.9	1.1233	1.4105	28.964 28.964
-15400 -15300	-15389 -15289	32.222 32.221	3.7817 3.7716	30557. 30538.	1.1069 1.1040	1583.4 1582.9	1.1167 1.1134	1.4179	28.964 28.964
-15200 -15100	-15189 -15089	32.221 32.221	3.7616 3.7516	30520. 30501.	1.1011	1582.4 1582.0	1.1101	1.4255	28.964 28.964
-15000 -14900	-14989 -14889	32.220 32.220	3.7417 + 0 3.7317	30482. 30464.	1.0953 +24	1581.5 1581.0	1.1036 +10 1.1003	1.4330 - 7 1.4369 1.4407	28.964 28.964 28.964
-14800 -14700 -14600	-14790 -14690 -14590	32.220 32.219 32.219	3.7218 3.7119 3.7020	30445. 30426. 30408.	1.0895 1.0866 1.0837	1580.5 1580.0 1579.5	1.0970 1.0938 1.0905	1.4445	28.964 28.964
-14500 -14400	-14490 -14390	32.219 32.218	3.6921 3.6823	30389. 30370.	1.0808	1579.0 1578.5	1.0873	1.4522	28.964 28.964
-14300 -14200	-14290 -14190	32.218 32.218 32.218	3.6724 3.6626	30351. 30333.	1.0751	1578.0 1577.5	1.0809	1.4600	28.964
-14100 -14000	-14090 -13991	32.217	3.6528 3.6431 + 0	30314. 30295.	1.0694	1577.0	1.0744	1.4678	28.964
-13900 -13800	-13891 -13791	32.217 32.217	3.6333 3.6236	30277. 30258.	1.0637	1576.0	1.0680	1.4756	28.964
-13700 -13600 -13500	-13691 -13591	32.216 32.216 32.216	3.6139 3.6042 3.5945	30239. 30220. 30202.	1.0580 1.0552 1.0523	1575.0 1574.5 1574.1	1.0617 1.0585 1.0554	1.4835 1.4875 1.4915	28.964 28.964 28.964
-13400 -13300	-13491 -13391 -13292	32.215 32.215 32.215	3.5849 3.5753	30183. 30164.	1.0495	1573.6 1573.1	1.0522	1.4955	28.964
-13200 -13100	-13192 -13092	32.215 32.214	3.5656 3.5561	30146. 30127.	1.0439 1.0411	1572.6 1572.1	1.0459 1.0428	1.5035 1.5076	28.964 28.964
-13000 -12900	-12992 -12892	32.214 32.214	3.5465 + 0 3.5369	30108. 30089.	1.0383 +24 1.0355	1571.6 1571.1	1.0397 +10 1.0365	1.5116 - 7 1.5157	28.964 28.964
-12800 -12700	-12792 -12692	32.214 32.213 32.213	3.5274 3.5179	30071. 30052.	1.0328 1.0300	1570.6 1570.1	1.0334	1.5198	28.964
-12600 -12500 -12400	-12592 -12493	32.213 32.213 32.212	3.5084 3.4989 3.4895	30033. 30015. 29996.	1.0272 1.0245 1.0217	1569.6 1569.1 1568.6	1.0272 1.0241 1.0211	1.5280 1.5321 1.5362	28.964 28.964 28.964
-12300 -12200	-12393 -12293 -12193	32.212 32.212 32.212	3.4800 3.4706	29977. 29958.	1.0189	1568.1 1567.6	1.0180	1.5404	28.964
-12100	-12093	32.211	3.4612	29940.	1.0135	1567.1	1.0119	1.5487 1.5529 - 7	28.964
-12000 -11900 -11800	-11993 -11893 -11793	32.211 32.211 32.210	3.4519 + 0 3.4425 3.4332	29921. 29902. 29884.	1.0107 +24 1.0080 1.0053	1566.1 1565.6	1.0058	1.5571	28.964
-11700 -11600	-11693 -11594	32.210 32.210	3.4239 3.4146	29865. 29846.	1.0026 9.9984 +23	1565.1 1564.6	9.9971 + 9 9.9669	1.5656 1.5698	28.964 28.964
-11500 -11400	-11494 -11394	32.210 32.209	3.4053 3.3960	29827. 29809.	9.9713	1564.1 1563.6	9.9367 9.9066	1.5741	28.964 28.964
-11300 -11200 -11100	-11294 -11194 -11094	32.209 32.209 32.208	3.3868 3.3776 3.3684	29790. 29771. 29753.	9.9173 9.8904 9.8636	1563.1 1562.6 1562.1	9.8766 9.8467 9.8168	1.5826 1.5870 1.5913	28.964 28.964 28.964
-11000	-10994	32.208	3.3592 + 0	29734.	9.8368 +23	1561.6 1561.1	9.7871 + 9 9.7573	1.5956 - 7 1.6000	28.964 28.964
-10900 -10800 -10700	-10894 -10794 -10695	32.208 32.207 32.207	3.3500 3.3409 3.3318	29715. 29696. 29678.	9.8101 9.7834 9.7568	1560.6 1560.1	9.7277 9.6981	1.6043	28.964 28.964
-10600 -10500	-10595 -10495	32.207 32.206	3.3227 3.3136	29659. 29640.	9.7302 9.7037	1559.6 1559.1	9.6686 9.6392	1.6131 1.6175	28.964 28.964
-10400 -10300	-10395 -10295	32.206 32.206	3.3045 3.2955	29621. 29603.	9.6772 9.6509	1558.6 1558.1	9.6098 9.5805	1.6219	28.964 28.964
-10200 -10100	-10195 -10095	32.206 32.205	3.2864 3.2774	29584. 29565.	9.6245 9.5982	1557.6 1557.1	9.5513 9.5222	1.6308 1.6353	28.964 28.964
-10000 -9900	-9995 -9895 -9795	32.205 32.205 32.204	3.2684 + 0 3.2595 3.2505	29547. 29528. 29509.	9.5720 +23 9.5458 9.5197	1556.6 1556.1 1555.6	9.4931 + 9 9.4641 9.4351	1.6397 - 7 1.6442 1.6488	28.964 28.964 28.964
-9800 -9700 -9600	-9695 -9596	32.204 32.204 32.204	3.2416 3.2327	29490. 29472.	9.4936 9.4676	1555.1 1554.6	9.4063 9.3775	1.6533	28.964 28.964
-9500 -9400	-9496 -9396	32.203 32.203	3.2238 3.2149	29453. 29434.	9.4416 9.4157	1554.1 1553.6	9.3487 9.3201	1.6624 1.6670	28.964 28.964
-9300 -9200	-9296 -9196 -9096	32.203 32.202	3.2060 3.1972 3.1884	29415. 29397. 29378.	9.3899 9.3641 9.3383	1553.1 1552.6 1552.1	9.2915 9.2630 9.2345	1,6716 1,6762 1,6808	28.964 28.964 28.964
-9100	-9090	32.202	3.1304	273104	,13393	, , , , , ,	,,,,,,,		
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Altit	ude	Accel. due to	Specific	Pressure scale	Number	Particle	Collision	Mean free	
Z, ft	H, ft		weight ω , lb ft ⁻² sec ⁻²	height H _P , ft	density n, ft ⁻³	speed V, ft sec ⁻¹	frequency ν , sec ⁻¹	path L, ft	weight M
-16500 -16400 -16300 -16200 -16100	-16513 -16413 -16313 -16213 -16112	32.225 32.225 32.224 32.224 32.224	3.8947 + 0 3.8845 3.8742 3.8640 3.8538	30765. 30747. 30728. 30709. 30690.	1.1399 +24 1.1369 1.1339 1.1309 1.1280	1588.9 1588.4 1587.9 1587.4 1586.9	1.1539 +10 1.1506 1.1472 1.1438 1.1404	1.3769 - 7 1.3806 1.3842 1.3879 1.3915	28.964 28.964 28.964 28.964 28.964
-16000 -15900 -15800 -15700 -15500 -15500 -15300 -15200 -15100	-16012 -15912 -15812 -15712 -15612 -15512 -15811 -15311 -15211	32.223 32.223 32.223 32.223 32.222 32.222 32.222 32.221 32.221 32.221	3.8436 + 0 3.8334 3.8232 3.8131 3.8030 3.7929 3.7828 3.7728 3.7627 3.7527	30672. 30653. 30634. 30615. 30597. 30578. 30559. 30551. 30522.	1.1250 +24 1.1220 1.1190 1.1161 1.1131 1.1102 1.1073 1.1043 1.1014 1.0985	1586.4 1586.0 1585.5 1585.0 1584.5 1584.0 1583.5 1583.0 1582.5 1582.0	1.1371 +10 1.1337 1.1304 1.1270 1.1237 1.1204 1.1171 1.1138 1.1105 1.1072	1.3952 - 7 1.3969 1.4026 1.4063 1.4100 1.4138 1.4175 1.4213 1.4251 1.4288	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-15000 -14900 -14800 -14700 -14500 -14500 -14500 -14200 -14100	-15011 -14911 -14811 -14710 -14610 -14510 -14410 -14210 -14210	32.220 32.220 32.220 32.219 32.219 32.219 32.219 32.218 32.218 32.218	3.7428 + 0 3.7328 3.7228 3.7129 3.7030 3.6931 3.6833 3.6734 3.6636 3.6538	30484. 30466. 3047. 30428. 30409. 30371. 30353. 30334. 30316.	1.0956 +24 1.0927 1.0898 1.0869 1.0840 1.0811 1.0782 1.0754 1.0725	1581.5 1581.0 1580.5 1580.0 1579.5 1579.0 1578.6 1578.1 1577.6 1577.1	1.1039 +10 1.1006 1.0974 1.0941 1.0909 1.0876 1.0844 1.0812 1.0780	7.4326 - 7 1.4364 1.4463 1.4480 1.4518 1.4557 1.4596 1.4635 1.4674	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-14000 -13900 -13800 -13700 -13600 -13500 -13400 -13300 -13200 -13100	-14009 -13909 -13809 -13709 -13609 -13509 -13409 -13308 -13108	32.217 32.217 32.217 32.216 32.216 32.216 32.215 32.215 32.215 32.215	3.6440 + 0 3.6342 3.6245 3.6148 3.6051 3.5954 3.5857 3.5761 3.5664 3.5566	30297. 30278. 30260. 30241. 30222. 30203. 30185. 30166. 30147. 30128.	1.0668 +24 1.0639 1.0611 1.0582 1.0554 1.0526 1.0498 1.0470 1.0442 1.0413	1576.6 1576.1 1575.6 1575.1 1574.6 1574.1 1573.6 1573.1 1572.6 1572.1	1.0715 +10 1.0683 1.0652 1.0652 1.0588 1.0556 1.0525 1.0493 1.0462 1.0430	1.4713 - 7 1.4753 1.4792 1.4832 1.4872 1.4911 1.4952 1.4992 1.5032	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-13000 -12900 -12800 -12700 -12600 -12500 -12800 -12300 -12200 -12100	-13008 -12908 -12808 -12708 -12507 -12507 -12307 -12307 -12107	32.214 32.214 32.214 32.213 32.213 32.213 32.212 32.212 32.212 32.212	3.5473 + 0 3.5377 3.5282 3.5186 3.5091 3.4996 3.4902 3.4807 3.4713 3.4619	30110. 30091. 30072. 30053. 30035. 30016. 29997. 29978. 29960. 29941.	1.0386 +24 1.0358 1.0330 1.0302 1.0274 1.0247 1.0219 1.0191 1.0164	1571.6 1571.1 1570.6 1570.1 1569.6 1569.1 1568.6 1568.1 1567.6 1567.1	1.0399 +10 1.0368 1.0337 1.0336 1.0275 1.0244 1.0213 1.0182 1.0151	1.5113 - 7 1.515% 1.5195 1.5236 1.5277 1.5318 1.5359 1.53601 1.5443 1.548%	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-12000 -11900 -11800 -11700 -11600 -11500 -11300 -11300 -11100	-12007 -11907 -11807 -11707 -11606 -11506 -11306 -11306 -11206 -11106	32.211 32.210 32.210 32.210 32.210 32.210 32.209 32.209 32.209 32.209	3.4525 + 0 3.4531 3.4338 3.4245 3.4152 3.4152 3.4059 3.3966 3.3874 3.3761 3.3689	29922. 2990%. 29885. 29846. 29847. 29829. 29810. 29791. 29772. 2975%.	1.0109 +24 1.0082 1.0055 1.0027 1.0000 9.9730 +23 9.9460 9.9190 9.8921 9.8652	1566.6 1566.1 1565.6 1565.6 1564.6 1564.2 1563.2 1563.2 1562.7 1562.2	1.0090 +10 1.0060 1.0029 9.9991 + 9 9.988 9.9386 9.9085 9.8785 9.8785 9.8485	1.5526 - 7 1.5568 1.5611 1.5653 1.5695 1.5738 1.5781 1.5824 1.5867	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-11000 -10900 -10800 -10700 -10600 -10400 -10300 -10200 -10100	-11006 -10906 -10806 -10705 -10605 -10505 -10405 -10305 -10205 -10105	32.208 32.208 32.207 32.207 32.207 32.206 32.206 32.206 32.206 32.206	3.3597 + 0 3.3506 3.3414 3.3323 3.3232 3.3141 3.3050 3.2959 3.2869 3.2779	29735. 29716. 29697. 29679. 29660. 29641. 29622. 29604. 29585. 29566.	9.8384 +23 9.8116 9.7849 9.7582 9.7316 9.7051 9.6786 9.6522 9.6258 9.5995	1561.7 1561.2 1560.7 1560.2 1559.7 1559.2 1558.7 1558.2 1557.7	9.7888 + 9 9.7590 9.7293 9.6997 9.6702 9.6407 9.6113 9.5820 9.5528	1.5954 - 7 1.5997 1.6041 1.6085 1.6128 1.6173 1.6217 1.6261 1.6306 1.6350	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-10000 -9900 -9800 -9700 -9600 -9500 -9800 -9300 -9200 -9100	-1005 -9905 -9805 -9705 -9604 -9504 -9404 -9304 -9204 -9104	32.205 32.205 32.204 32.204 32.204 32.203 32.203 32.203 32.203 32.202 32.202	3.2689 + 0 3.2599 3.2509 3.2420 3.2331 3.2242 3.2153 3.2064 3.1976 3.1887	29547. 29529. 29510. 29491. 29472. 29454. 29435. 29416. 29379.	9.5732 +23 9.5470 9.5209 9.4948 9.49687 9.4168 9.3909 9.3651 9.3394	1556.7 1556.1 1555.6 1555.1 1554.6 1554.1 1553.6 1553.1 1552.6	9.4945 + 9 9.4654 9.4365 9.4076 9.3787 9.3500 9.3213 9.2927 9.2641 9.2356	1.6395 - 7 1.6440 1.6486 1.6531 1.6576 1.6622 1.6668 1.6714 1.6760 1.6806	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
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Altif	ude	Ac cel. due to	Specific	Pressure scale	Number	Particle	Collision	Mean free	Molecular
H, ft	Z, ft		weight ω , lb ft ⁻² sec ⁻²	height H _P , ft	density n, ft ⁻³	speed ∇, ft sec⁻'	frequency ν , sec ⁻¹	path L, ft	weight M
-9000 -8900 -8800 -8700 -8600 -8500 -8400 -8200 -8100	-8996 -8896 -8796 -8696 -8596 -8497 -8397 -8297 -8197 -8097	32.202 32.202 32.201 32.201 32.201 32.200 32.200 32.200 32.199 32.199	3.1796 + 0 3.1708 3.1620 3.1533 3.1446 3.1359 3.1272 3.1185 3.1098 3.1012	29359. 29341. 29322. 29303. 29284. 29266. 29247. 29228. 29209. 29191.	9.3126 +23 9.2870 9.2614 9.2359 9.2104 9.1850 9.1596 9.1343 9.1091 9.0839	1551.6 1551.1 1550.6 1550.1 1549.6 1549.1 1548.6 1548.1 1547.6	9.2061 + 9 9.11778 9.1496 9.1214 9.0933 9.0652 9.0373 9.0094 8.9815 8.9538	1.6854 - 7 1.6901 1.6947 1.6994 1.7048 1.7088 1.7136 1.7136 1.7183 1.7231	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-8000 -7900 -7800 -7800 -7600 -7500 -7400 -7300 -7200 -7100	-7997 -7897 -7797 -7697 -7597 -7497 -7397 -7297 -7198 -7098	32.199 32.198 32.198 32.198 32.197 32.197 32.197 32.197 32.197 32.196	3.0926 + 0 3.0840 3.0754 3.0668 3.0583 3.0498 3.0413 3.0328 3.0243 3.0243	29172. 29153. 29135. 29136. 29097. 29078. 29060. 29041. 29022. 29003.	9.0587 +23 9.0336 9.0086 8.9836 8.9586 8.9537 8.9089 8.8841 8.8594 8.8347	1546.6 1546.1 1545.6 1545.1 1544.6 1544.1 1543.6 1543.0 1542.5	8.9261 + 9 8.8984 8.8709 8.8434 8.8159 8.7886 8.7613 8.7340 8.7069 8.6798	1.7327 - 7 1.7375 1.7423 1.77520 1.7569 1.7618 1.7667 1.7716	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-7000 -6900 -6800 -6700 -6600 -6500 -6400 -6300 -6200 -6100	-6998 -6898 -6798 -6698 -6598 -6598 -6398 -6298 -6198 -6098	32.196 32.195 32.195 32.195 32.194 32.194 32.194 32.193 32.193 32.193	3.0074 + 0 2.9990 2.9906 2.9822 2.9739 2.9655 2.9572 2.9489 2.9406 2.9323	28985. 28966. 28947. 28928. 28910. 28891. 28872. 28853. 28835. 28816.	8.8101 +23 8.7855 8.7610 8.7366 8.7121 8.6878 8.6635 8.6392 8.6150 8.5909	1541.5 1541.0 1540.5 1540.0 1539.5 1539.0 1538.5 1538.0 1537.5	8.6528 + 9 8.6258 8.5787 8.5721 8.5453 8.5186 8.4920 8.4654 8.4389 8.4125	1.7816 - 7 1.7865 1.7915 1.7995 1.8016 1.8066 1.8117 1.8168 1.8219 1.8270	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-6000 -5900 -5800 -5700 -5600 -5500 -5400 -5300 -5200 -5100	-5998 -5898 -5798 -5698 -5598 -5499 -5399 -5299 -5199 -5099	32.193 32.192 32.192 32.192 32.191 32.191 32.191 32.190 32.190 32.190	2.9241 + 0 2.9158 2.9076 2.8994 2.8912 2.8831 2.8749 2.8668 2.8587 2.8506	28797. 28779. 28760. 28741. 28722. 28704. 28665. 28666. 28647. 28629.	8.5668 +23 8.5427 8.5187 8.4948 8.4709 8.4470 8.4232 8.3995 8.3758 8.3522	1536.5 1536.0 1535.5 1534.9 1534.4 1533.9 1533.4 1532.9 1532.4 1531.9	8.3861 + 9 8.3598 8.3336 8.3074 8.2813 8.2253 8.2293 8.2034 8.1775 8.1517	1.8322 - 7 1.8373 1.8425 1.8427 1.8529 1.6581 1.8634 1.8686 1.8739	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-5000 -4900 -4800 -4700 -4600 -4500 -4300 -4300 -4300 -4100	-4999 -4899 -4799 -4599 -4599 -4399 -4399 -4199 -4199	32.189 32.189 32.189 32.188 32.188 32.188 32.187 32.187 32.187	2.8425 + 0 2.8345 2.8264 2.8184 2.8104 2.8024 2.7944 2.7845 2.7785 2.7706	28610. 28591. 28572. 285754. 28535. 28516. 28497. 28479. 28460. 28441.	8.3286 +23 8.3051 8.2816 8.2581 8.2348 8.2114 8.1861 8.1649 8.1417 8.1186	1531.4 1530.9 1530.4 1529.9 1529.3 1528.8 1528.3 1527.8 1527.8 1527.3	8.1260 + 9 8.1003 8.0748 8.0492 8.0492 8.0238 7.9984 7.9730 7.9477 7.9225 7.8974	1.8846 - 7 1.8899 1.8953 1.9006 1.9060 1.9114 1.9169 1.9223 1.9278 1.9333	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-4000 -3900 -3800 -3700 -3600 -3500 -3400 -3300 -3200 -3100	-3999 -3899 -3799 -3699 -3599 -3499 -3399 -3299 -3200 -3100	32.186 32.186 32.186 32.185 32.185 32.185 32.185 32.184 32.184	2.7627 + 0 2.7548 2.7469 2.7391 2.7313 2.7234 2.7156 2.7079 2.7001 2.6924	28422. 28404. 28385. 28386. 28347. 28329. 28310. 28291. 28272. 28254.	8.0955 +23 8.0725 8.0495 8.0496 8.0037 7.9809 7.9581 7.9354 7.9127 7.8900	1526.3 1525.8 1525.3 1524.8 1524.2 1523.7 1523.2 1522.7 1522.2 1521.7	7.8723 + 9 7.8473 7.8223 7.7974 7.7726 7.7478 7.7231 7.6985 7.6739 7.6494	1.9388 - 7 1.9443 1.9499 1.9555 1.9610 1.9667 1.9723 1.9779 1.9836	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-3000 -2900 -2800 -2700 -2600 -2500 -2400 -2300 -2200 -2100	-3000 -2900 -2800 -2700 -2600 -2500 -2400 -2300 -2200 -2100	32.183 32.183 32.183 32.182 32.182 32.182 32.181 32.181 32.181 32.181	2.6846 + 0 2.6769 2.6692 2.6615 2.6539 2.6462 2.6386 2.6310 2.6234 2.6158	28235. 2816. 28197. 28160. 28141. 28122. 28104. 28085. 28066.	7.8675 +23 7.8449 7.8225 7.8000 7.7776 7.7553 7.77330 7.7108 7.6886 7.6665	1521.2 1520.7 1520.1 1519.6 1519.1 1518.6 1518.1 1517.6 1517.1	7.6249 + 9 7.6005 7.5762 7.5519 7.5277 7.5035 7.4794 7.4554 7.4314 7.4075	1.9950 - 7 2.0007 2.0065 2.0123 2.0180 2.0239 2.0297 2.0355 2.0414 2.0473	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-2000 -1900 -1800 -1700 -1600 -1500 -1400 -1300 -1200 -1100	-2000 -1900 -1800 -1700 -1600 -1500 -1400 -1300 -1200 -1100	32.180 32.180 32.180 32.179 32.179 32.179 32.178 32.178 32.178 32.178	2.6082 + 0 2.6007 2.5932 2.5857 2.5782 2.5707 2.5632 2.5558 2.5483 2.5409	28047 - 28029 - 28010 - 27991 - 27972 - 27954 - 27916 - 27877 - 27879 - 27879 -	7.6444 +23 7.6223 7.6003 7.5784 7.5565 7.5346 7.5128 7.4911 7.4694 7.4477	1516.0 1515.5 1515.0 1514.5 1514.0 1513.5 1513.0 1512.4 1511.9	7.3837 + 9 7.3599 7.3362 7.3125 7.2889 7.2654 7.2419 7.2184 7.1951 7.1718	2.0532 - 7 2.0592 2.0651 2.0711 2.0771 2.0831 2.0892 2.0952 2.1013 2.1074	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

		T		D			-	<u> </u>	
Altif	ude	Accel. due to gravity	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, ft	H, ft	g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	H _p , ft	n, ft ⁻³	∇, ft sec ⁻	ν, sec ⁻¹	L, ft	М
-9000 -8900 -8800 -8700 -8600 -8500 -8400 -8300 -8200 -8100	-9004 -8904 -8804 -8704 -8604 -8503 -8403 -8303 -8203 -8103	32.202 32.202 32.201 32.201 32.201 32.200 32.200 32.200 32.199 32.199	3.1799 + 0 3.1711 3.1624 3.1536 3.1449 3.1362 3.1275 3.1188 3.1101 3.1015	29360 - 29341 - 29323 - 29304 - 29285 - 29266 - 29229 - 29210 - 29191 -	9.3136 +23 9.2880 9.2624 9.2368 9.2113 9.1859 9.1605 9.1352 9.1099 9.0847	1551.6 1551.1 1550.6 1550.1 1549.6 1549.1 1548.6 1548.1 1547.6 1547.1	9.2072 + 9 9.1789 9.1506 9.1224 9.0943 9.0662 9.0382 9.0103 8.9824 8.9546	1.6852 - 7 1.6899 1.6946 1.6992 1.7040 1.7087 1.7134 1.7182 1.7229 1.7277	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-8000 -7900 -7800 -7700 -7600 -7500 -7400 -7300 -7200 -7100	-8003 -7903 -7803 -7703 -7603 -7503 -7403 -7403 -7303 -7202 -7102	32.199 32.198 32.198 32.198 32.197 32.197 32.197 32.197 32.196	3.0929 + 0 3.0842 3.0757 3.0671 3.0585 3.0500 3.0415 3.0330 3.0245 3.0161	29173- 29154- 29135- 29116- 29098- 29079- 29060- 29041- 29023- 29004-	9.0595 +23 9.0344 9.0093 8.9843 8.9593 8.9594 8.9344 8.8648 8.8640 8.8353	1546.6 1546.1 1545.6 1545.1 1544.6 1544.1 1543.6 1543.1 1542.6 1542.1	8.9269 + 9 8.8992 8.8717 8.8441 8.8167 8.7893 8.7620 8.7347 8.7076 8.6804	1.7325 - 7 1.7373 1.7422 1.7470 1.7519 1.7568 1.7617 1.7666 1.7715	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-7000 -6900 -6800 -6700 -6600 -6500 -6400 -6300 -6200 -6100	-7002 -6902 -6802 -6702 -6602 -6502 -6402 -6302 -6202 -6102	32.196 32.195 32.195 32.195 32.194 32.194 32.194 32.193 32.193 32.193	3.0076 + 0 2.9992 2.9908 2.9824 2.9740 2.9657 2.9574 2.9491 2.9408 2.9325	28985. 28948. 28948. 28929. 28910. 28891. 28873. 28854. 28835. 28816.	8.8107 +23 8.7861 8.7616 8.77371 8.7127 8.6883 8.66440 8.6397 8.6155 8.5913	1541.5 1541.0 1540.5 1540.5 1539.5 1539.0 1538.5 1538.0 1537.5 1537.0	8.6534 + 9 8.6264 8.5995 8.5726 8.5459 8.5192 8.4925 8.4659 8.4659 8.4334	1.7814 - 7 1.7864 1.7914 1.7964 1.8015 1.8065 1.8116 1.8167 1.8218 1.8269	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-6000 -5900 -5800 -5700 -5600 -5500 -5400 -5300 -5200 -5100	-6002 -5902 -5802 -5702 -5602 -5501 -5401 -5301 -5201 -5101	32.193 32.192 32.192 32.191 32.191 32.191 32.191 32.190 32.190	2.9242 + 0 2.9160 2.9078 2.8996 2.8914 2.8832 2.8750 2.8669 2.8588 2.8507	28798. 28779. 28760. 28741. 28723. 28704. 28685. 28666. 28648. 28629.	8.5672 +23 8.5431 8.5191 8.4951 8.4712 8.4474 8.4236 8.3998 8.3761 8.3525	1536.5 1536.0 1535.5 1535.0 1534.4 1533.9 1532.4 1532.9 1532.4	8.3866 + 9 8.3603 8.3340 8.3378 8.2817 8.2256 8.2296 8.2037 8.1778 8.1520	1.8321 - 7 1.8372 1.8424 1.8476 1.8528 1.8580 1.8633 1.8686 1.8739	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-5000 -4900 -4800 -4700 -4600 -4500 -4300 -4200 -4100	-5001 -4901 -4801 -4701 -4601 -4501 -4301 -4301 -4201	32.189 32.189 32.189 32.189 32.188 32.188 32.187 32.187	2.8426 + 0 2.8345 2.8265 2.8185 2.8105 2.8025 2.7945 2.7786 2.7786 2.77707	28610. 28571. 28573. 28573. 28535. 28516. 28478. 28460. 28441.	8.3289 +23 8.3053 8.2818 8.2584 8.2584 8.2350 8.2116 8.1884 8.1651 8.1419 8.1188	1531.4 1530.9 1530.4 1529.9 1528.8 1528.8 1528.3 1527.8 1527.8	8.1263 + 9 8.1006 8.0750 8.0495 8.0240 7.9986 7.9733 7.9480 7.9228	1.8845 - 7 1.8898 1.8952 1.9006 1.9060 1.9114 1.9168 1.9223 1.9278	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-\u000 -3900 -3800 -3700 -3600 -3500 -3400 -3300 -3200 -3100	-4001 -3901 -3801 -3701 -3601 -3501 -3401 -3301 -3200 -3100	32.186 32.186 32.185 32.185 32.185 32.185 32.184 32.184	2.7628 + 0 2.7549 2.7470 2.7391 2.7313 2.7235 2.7157 2.7079 2.7001 2.6924	28423. 28404. 28385. 28366. 28348. 28329. 28310. 28273. 28273.	8.0957 +23 8.0727 8.0497 8.0267 8.0267 8.0038 7.9810 7.9582 7.9355 7.9128 7.8902	1526.3 1525.8 1525.3 1524.8 1524.2 1523.7 1523.2 1522.7 1522.2 1521.7	7.8725 + 9 7.8475 7.8225 7.7976 7.7728 7.7480 7.7233 7.6986 7.6740 7.6495	1.9388 - 7 1.9443 1.9499 1.9554 1.9610 1.9666 1.9723 1.9779 1.9836	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-3000 -2900 -2800 -2700 -2600 -2500 -2400 -2300 -2200 -2100	-3000 -2900 -2800 -2700 -2600 -2500 -2400 -2200 -2100	32.183 32.183 32.183 32.182 32.182 32.181 32.181 32.181 32.181	2.6847 + 0 2.6769 2.6692 2.6616 2.6539 2.6462 2.6386 2.6310 2.6234 2.6158	28235. 28216. 28197. 28179. 28160. 28141. 28122. 28104. 28085. 28066.	7.8676 +23 7.8450 7.8255 7.8205 7.7777 7.77554 7.7331 7.7108 7.6886 7.6685	1521.2 1520.7 1520.2 1519.6 1519.1 1518.6 1518.1 1517.6 1517.1	7.6250 + 9 7.6006 7.5763 7.5520 7.5278 7.5036 7.4795 7.4555 7.4315 7.4076	1.9950 - 7 2.0007 2.0065 2.0122 2.0180 2.0238 2.0297 2.0355 2.0414 2.0473	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
-2000 -1900 -1800 -1700 -1600 -1500 -1400 -1300 -1200 -1100	-2000 -1900 -1800 -1700 -1600 -1500 -1400 -1300 -1200 -1100	32.180 32.180 32.179 32.179 32.179 32.178 32.178 32.178 32.178	2.6083 + 0 2.6007 2.5932 2.5857 2.5782 2.5707 2.5632 2.5558 2.5484 2.5409	28047. 28029. 28010. 27991. 27972. 27954. 27935. 27916. 27877. 27879.	7.6444 +23 7.6224 7.6004 7.5784 7.5565 7.5347 7.5129 7.4911 7.4694 7.4478	1516.0 1515.5 1515.0 1514.5 1514.0 1513.5 1513.0 1512.4 1511.9	7.3837 + 9 7.3599 7.3362 7.3125 7.2889 7.2654 7.2419 7.2185 7.1951 7.1718	2.0532 - 7 2.0592 2.0651 2.0711 2.0771 2.0831 2.0892 2.0952 2.1013 2.1074	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
		<u> </u>			<u> </u>	<u> </u>		<u> </u>	

TABLE ▼.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altif	ude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
H, ft	Z, ft	gravity g,ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	height H _P , ft	n, ft ⁻³	⊽, ft sec⁻¹	ν , sec ⁻¹	L, ft	M
-1000 -900 -800 -700 -600 -500 -400 -300 -200 -100	-1000 -900 -800 -700 -600 -500 -400 -300 -200 -100	32.177 32.177 32.177 32.176 32.176 32.176 32.175 32.175 32.175 32.175	2.5335 + 0 2.5262 2.5188 2.5114 2.5041 2.4968 2.4895 2.4822 2.4750 2.4677	27860. 27841. 27822. 27804. 27785. 27766. 27747. 27729. 27710.	7.4261 +23 7.4046 7.3831 7.3616 7.3402 7.3188 7.2975 7.2762 7.2550 7.2338	1510.9 1510.4 1509.9 1509.3 1508.8 1508.3 1507.8 1507.3 1506.8	7.1485 + 9 7.1253 7.1022 7.0792 7.0561 7.0332 7.0103 6.9875 6.9647 6.9420	2.1136 - 7 2.1197 2.1259 2.1321 2.1383 2.1446 2.1508 2.1571 2.1634 2.1698	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
o	0	32.174	2.4605 + 0	27672.	7.2127 +23	1505.7	6.9193 + 9	2.1761 - 7	28.964
100 200 300 400 500 600 700 800	100 200 300 400 500 600 700 800	32.174 32.173 32.173 32.173 32.173 32.172 32.172 32.172 32.172 32.171	2.4533 2.4461 2.4389 2.4317 2.4246 2.4174 2.4103 2.4032 2.3961	27654. 27635. 27616. 27597. 27578. 27560. 27541. 27522. 27503.	7.1916 7.1706 7.1496 7.1287 7.1078 7.0869 7.0661 7.0454 7.0247	1505.2 1504.7 1504.2 1503.7 1503.1 1502.6 1502.1 1501.6	6.8967 6.8742 6.8517 6.8293 6.8069 6.7846 6.7624 6.7402 6.7181	2.1825 2.1889 2.1953 2.2018 2.2082 2.2147 2.2213 2.2278 2.2344	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
1000 1100 1200 1300 1400 1500 1600 1700 1800	1000 1100 1200 1300 1400 1500 1600 1700 1800	32.171 32.171 32.170 32.170 32.170 32.169 32.169 32.169 32.168 32.168	2.3891 + 0 2.3820 2.3750 2.3679 2.3609 2.3539 2.3470 2.3470 2.3400 2.3331 2.3261	27485. 27466. 27447. 27428. 27410. 27371. 27372. 27353. 27316.	7.0040 +23 6.9834 6.9628 6.9423 6.9218 6.9014 6.8810 6.8607 6.8404 6.8201	1500.5 1500.0 1499.5 1499.0 1498.5 1497.9 1496.9 1496.4 1496.9	6.6960 + 9 6.6740 6.6520 6.6301 6.6082 6.5865 6.5647 6.5430 6.5214 6.4999	2.2410 - 7 2.2476 2.2542 2.2609 2.2676 2.2743 2.2810 2.2878 2.2946 2.3014	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	32.168 32.168 32.167 32.167 32.167 32.166 32.166 32.166 32.165 32.165	2.3192 + 0 2.3123 2.3055 2.2986 2.2917 2.2849 2.2781 2.2713 2.2645 2.2577	27297. 27278. 27259. 27241. 27222. 27203. 27184. 27166. 27147. 27128.	6.7999 +23 6.7798 6.7597 6.7396 6.7196 6.6996 6.6797 6.6598 6.6400 6.6202	1495.3 1494.8 1494.3 1493.8 1493.2 1492.7 1492.2 1491.7 1491.2 1490.6	6.4784 + 9 6.4569 6.4355 6.4142 6.3929 6.3717 6.3505 6.3294 6.3083 6.2873	2.3082 - 7 2.3151 2.3219 2.3289 2.3358 2.3428 2.3497 2.3568 2.3638 2.3709	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
3000 3100 3200 3300 3400 3500 3600 3700 3800	3000 3100 3200 3301 3401 3501 3601 3701 3801 3901	32.165 32.164 32.164 32.164 32.164 32.163 32.163 32.163 32.163 32.162 32.162	2.2510 + 0 2.2442 2.2375 2.2308 2.2241 2.2174 2.2108 2.2041 2.1975 2.1909	27109. 27091. 27072. 27053. 27034. 27015. 26997. 26978. 26959.	6.6005 +23 6.5808 6.5611 6.5415 6.5219 6.5024 6.4830 6.4635 6.4441 6.4248	1490.1 1489.6 1489.1 1488.5 1488.0 1487.5 1487.0 1486.4 1485.9	6.2664 + 9 6.2455 6.2246 6.2038 6.1831 6.1624 6.1418 6.1212 6.1007 6.0803	2.3780 - 7 2.3851 2.3922 2.3994 2.4066 2.4138 2.4211 2.4283 2.356 2.4430	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
4000 4100 4200 4300 4400 4500 4600 4700 4800 4900	4001 4101 4201 4301 4401 4501 4601 4701 4801	32.161 32.161 32.161 32.161 32.160 32.160 32.160 32.160 32.159 32.159	2.1843 + 0 2.1777 2.1711 2.1646 2.1580 2.1515 2.1450 2.1385 2.1320 2.1256	26922. 26903. 26884. 26865. 26846. 26828. 26809. 26770. 26771. 26753.	6.4055 +23 6.3863 6.3670 6.3479 6.3288 6.3097 6.2907 6.2717 6.2527 6.2338	1484.9 1484.3 1483.8 1483.3 1482.8 1482.2 1481.7 1481.2 1480.7	6.0599 + 9 6.0395 6.0192 5.9990 5.9788 5.9587 5.9386 5.9186 5.8986 5.8787	2.4503 - 7 2.4577 2.4651 2.4726 2.4800 2.4875 2.4951 2.5026 2.5102 2.5178	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
5000 5100 5200 5300 5400 5500 5600 5700 5800 5900	5001 5101 5201 5301 5401 5501 5602 5702 5802 5902	32.159 32.158 32.158 32.158 32.157 32.157 32.157 32.156 32.156 32.156	2.1191 + 0 2.1127 2.1063 2.0999 2.0935 2.0871 2.0807 2.0744 2.0681 2.0617	26734. 26715. 26696. 26677. 26659. 26640. 26621. 26602. 26584.	6.2150 +23 6.1962 6.1774 6.1587 6.1400 6.1214 6.1028 6.0842 6.0657 6.0472	1479.6 1479.1 1478.6 1478.0 1477.5 1477.0 1476.5 1475.9 1475.4 1474.9	5.8588 + 9 5.8390 5.8192 5.7795 5.7799 5.7603 5.7603 5.7212 5.7018 5.6824	2.5255 - 7 2.5331 2.5408 2.5485 2.5563 2.5641 2.5719 2.5797 2.5876 2.5955	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
6000 6100 6200 6300 6400 6500 6600 6700 6800 6900	6002 6102 6202 6302 6802 6502 6602 6702 6802 6902	32.156 32.155 32.155 32.155 32.154 32.154 32.154 32.153 32.153 32.153	2.0554 + 0 2.0492 2.0429 2.0366 2.0304 2.0242 2.0179 2.0117 2.0056 1.9994	26546. 26527. 26508. 26490. 26471. 26452. 26433. 26414. 26396. 26377.	6.0288 +23 6.0104 5.9921 5.9738 5.9556 5.9373 5.9192 5.9011 5.8830 5.8649	1474.3 1473.8 1473.3 1472.8 1472.2 1471.7 1471.2 1470.6 1470.1 1469.6	5.6630 + 9 5.6438 5.6245 5.6053 5.5862 5.5671 5.5481 5.5291 5.5102 5.4913	2.6034 - 7 2.6114 2.6194 2.6274 2.6355 2.6435 2.6517 2.6598 2.6680 2.6762	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

		_	OLOMET !			r			
Altit	ude	Accel. due to	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, ft	H, ft	gravity g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec⁻'	ν, sec ⁻¹	L, ft	М
-1000 -900 -800 -700 -600 -500 -400 -300 -200	-1000 -900 -800 -700 -600 -500 -400 -300 -200 -100	32.177 32.177 32.177 32.176 32.176 32.176 32.175 32.175 32.175 32.175	2.5335 + 0 2.5262 2.5188 2.5115 2.5041 2.4968 2.4895 2.4822 2.4750 2.4677	27860. 27841. 27822. 27804. 27785. 27766. 27747. 27729. 27710. 27691.	7.4261 +23 7.4046 7.3831 7.3616 7.3402 7.3188 7.2975 7.2762 7.2550 7.2338	1510.9 1510.4 1509.9 1509.3 1508.8 1508.3 1507.8 1507.8	7.1485 + 9 7.1254 7.1022 7.0792 7.0561 7.0332 7.0103 6.9875 6.9647 6.9420	2.1136 - 7 2.1197 2.1259 2.1321 2.1383 2.1446 2.1508 2.1571 2.1634 2.1698	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
0	0	32.174	2.4605 + 0	27672.	7.2127 +23	1505.7	6.9193 + 9	2.1761 - 7	28.964
100 200 300 400 500 700 800 900	100 200 300 400 500 600 700 800 900	32.174 32.173 32.173 32.173 32.173 32.172 32.172 32.172 32.172 32.172	2.4533 2.4461 2.4389 2.4317 2.4246 2.4174 2.4103 2.4032 2.3961	27654. 27635. 27616. 27597. 27578. 27560. 27541. 27522. 27503.	7.1916 7.1706 7.1496 7.1496 7.1287 7.1078 7.0869 7.0661 7.0454 7.0247	1505.2 1504.7 1504.2 1503.7 1503.1 1502.6 1502.1 1501.6	6.8967 6.8742 6.8517 6.8293 6.8069 6.7846 6.7624 6.7402 6.7181	2.1825 2.1889 2.1953 2.2018 2.2082 2.2147 2.2213 2.2278 2.2344	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
1000 1100 1200 1300 1400 1500 1600 1700 1800	1000 1100 1200 1300 1400 1500 1600 1700 1800 1900	32.171 32.171 32.170 32.170 32.170 32.169 32.169 32.169 32.168 32.168	2.3891 + 0 2.3820 2.3750 2.3680 2.3689 2.3540 2.3470 2.3400 2.3331 2.3262	27485. 27466. 27447. 27428. 27410. 27371. 27372. 27373. 27335. 27316.	7.0040 +23 6.9834 6.9628 6.9423 6.9218 6.9014 6.8810 6.8607 6.8404 6.8202	1500.5 1500.0 1499.5 1499.0 1498.5 1497.9 1497.4 1496.9 1496.4	6.6960 + 9 6.6740 6.6520 6.6301 6.6083 6.5865 6.5647 6.5431 6.5215 6.4999	2.2410 - 7 2.2476 2.2542 2.2609 2.2676 2.2743 2.2810 2.2878 2.2945 2.3014	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	32.168 32.168 32.167 32.167 32.167 32.166 32.166 32.166 32.165 32.165	2.3192 + 0 2.3124 2.3055 2.2986 2.2918 2.2849 2.2713 2.2713 2.2645 2.2578	27297. 27278. 27259. 27241. 27222. 27203. 27184. 27166. 27147. 27128.	6.8000 +23 6.7798 6.7597 6.7397 6.7197 6.6997 6.6798 6.6599 6.6401 6.6203	1495.3 1494.8 1494.3 1493.8 1493.3 1492.7 1492.2 1491.7 1491.2 1490.6	6.4784 + 9 6.4569 6.4356 6.4142 6.3929 6.3717 6.3506 6.3294 6.3084 6.2874	2.3082 - 7 2.3150 2.3219 2.3288 2.3358 2.3427 2.3497 2.3567 2.3638 2.3708	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
3000 3100 3200 3300 3500 3500 3600 3700 3800 3900	3000 3100 3200 3299 3399 3499 3599 3699 3799 3799	32.164 32.164 32.164 32.164 32.163 32.163 32.163 32.163 32.163	2.2510 + 0 2.2443 2.2376 2.2308 2.2242 2.2175 2.2108 2.2042 2.1975 2.1909	27109. 27091. 27072. 27053. 27034. 27016. 26997. 26959. 26940.	6.6006 +23 6.5809 6.5612 6.5416 6.5221 6.5025 6.4831 6.4637 6.4637 6.4443 6.4249	1490.1 1489.6 1489.1 1488.5 1488.0 1487.5 1487.0 1486.5 1485.9 1485.4	6.2664 + 9 6.2456 6.2247 6.2039 6.1832 6.1626 6.1419 6.1214 6.1009 6.0804	2.3779 - 7 2.3850 2.3922 2.3994 2.4065 2.4138 2.4210 2.4283 2.4256 2.4429	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
4000 4100 4200 4300 4500 4500 4700 8800 8900	3999 4099 4199 4299 4399 4599 4599 4699 4699	32.162 32.161 32.161 32.161 32.160 32.160 32.160 32.160 32.159 32.159	2-1843 + 0 2-1778 2-1712 2-1646 2-1581 2-1516 2-1451 2-1386 2-1321 2-1326	26922. 26903. 26884. 26865. 26847. 26828. 26809. 26790. 26772.	6.4057 +23 6.3864 6.3672 6.3481 6.3289 6.3099 6.2719 6.2529 6.2340	1484.9 1483.8 1483.3 1482.8 1482.3 1481.7 1481.2 1480.7 1480.1	6.0600 + 9 6.0397 6.0194 5.9992 5.9790 5.9589 5.9188 5.9188 5.8988 5.8789	2.4503 - 7 2.4577 2.4651 2.4651 2.4725 2.4800 2.4875 2.5025 2.5025 2.5101 2.5177	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
5000 5100 5200 5300 5400 5500 5600 5700 5800 5900	4999 5099 5199 5299 5399 5499 5598 5698 5798 5898	32.159 32.158 32.158 32.158 32.157 32.157 32.157 32.156 32.156 32.156	2.1192 + 0 2.1128 2.1063 2.0999 2.0936 2.0872 2.0808 2.0745 2.0682 2.0618	26734. 26715. 26696. 26659. 26659. 26621. 26603. 26584. 26565.	6.2152 +23 6.1964 6.1776 6.1589 6.1403 6.1216 6.1030 6.0845 6.0660 6.0475	1479.6 1479.1 1478.6 1478.0 1477.5 1477.0 1476.5 1475.9 1475.4	5.8590 + 9 5.8392 5.8195 5.7998 5.7801 5.7605 5.7410 5.7215 5.7021 5.6827	2.5254 - 7 2.5330 2.5407 2.5484 2.5562 2.5640 2.5718 2.5776 2.5875 2.5954	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
6000 6100 6200 6300 6400 6500 6600 6700 6800 6900	5998 6098 6198 6298 6398 6498 6598 6698 6798	32.156 32.155 32.155 32.155 32.154 32.154 32.154 32.153 32.153 32.153	2.0555 + 0 2.0493 2.0430 2.0367 2.0305 2.0243 2.0181 2.0119 2.0057	265%6. 26528. 26509. 26%90. 26%71. 26%52. 26%3%. 26%15. 26376.	6.0291 +23 6.0108 5.9924 5.9742 5.9559 5.9377 5.9174 5.9014 5.8834 5.8654	1474.3 1473.8 1473.3 1472.8 1472.2 1471.7 1471.2 1470.6 1470.1	5.6634 + 9 5.6441 5.6249 5.6057 5.5866 5.5675 5.5485 5.5295 5.5106 5.4917	2.6033 - 7 2.6113 2.6192 2.6273 2.6353 2.6434 2.6515 2.6596 2.6678 2.6760	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

		Accel.		Pressure		Ī	6 :		
Alti	ude	due to	Specific weight	scale	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
H, ft	Z, ft	gravity g, ft sec ⁻²	ω, lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec¯'	ν, sec ⁻¹	L, ft	М
7000 7100 7100 7200 7300 7400 7500 7600 7800 7800	7002 7102 7202 7303 7403 7503 7603 7703 7803 7903	32.152 32.152 32.152 32.152 32.151 32.151 32.151 32.150 32.150 32.150	1.9932 + 0 1.9871 1.9810 1.9749 1.9688 1.9627 1.9566 1.9506 1.9445	26358. 26339. 26321. 26302. 26283. 26264. 26245. 26227. 26208. 26189.	5.8469 +23 5.8290 5.8111 5.7932 5.7576 5.7576 5.7399 5.7222 5.7045 5.6869	1469.0 1468.5 1468.0 1467.4 1466.9 1466.4 1465.3 1464.8	5.4725 + 9 5.4537 5.4350 5.4163 5.3977 5.3791 5.3606 5.3421 5.3237 5.3053	2.68% - 7 2.6927 2.7010 2.7093 2.71177 2.7261 2.73%5 2.71%30 2.7515 2.7600	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
8000 8100 8200 8300 8400 8500 8600 8700 8800	8003 8103 8203 8303 8403 8503 8604 8704 8804	32.149 32.149 32.148 32.148 32.148 32.148 32.147 32.147	1.9325 + 0 1.9265 1.9205 1.9146 1.9086 1.9027 1.8967 1.8908 1.8849 1.8791	26170. 26151. 26133. 26114. 26095. 26076. 26057. 26039. 26020. 26001.	5.6693 +23 5.6518 5.6343 5.6168 5.5994 5.5820 5.5647 5.5474 5.5302 5.5130	1463.7 1463.2 1462.7 1462.1 1461.6 1461.1 1460.5 1460.0 1459.5 1458.9	5.2870 + 9 5.2687 5.2505 5.2324 5.2142 5.1962 5.1781 5.1602 5.1423 5.1244	2.7685 - 7 2.7771 2.7857 2.7944 2.8031 2.8118 2.8206 2.8294 2.8382 2.8470	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
9000 9100 9200 9300 9400 9500 9700 9800 9900	9004 9104 9204 9304 9404 9504 9705 9805 9905	32.146 32.146 32.146 32.145 32.145 32.145 32.144 32.144 32.144 32.144	1.8732 + 0 1.8673 1.8657 1.8557 1.8499 1.8441 1.8383 1.8325 1.8267	25982. 25904. 25945. 25926. 25907. 25888. 25870. 25851. 25832. 25813.	5.4958 +23 5.4787 5.4616 5.4446 5.4276 5.4106 5.3937 5.3768 5.3600 5.3432	1458.4 1457.9 1457.3 1456.8 1456.3 1455.7 1455.2 1454.6 1454.1	5.1066 + 9 5.0888 5.0711 5.0534 5.0357 5.0182 5.0006 4.9832 4.9657	2.8559 - 7 2.8648 2.8738 2.8828 2.8918 2.9009 2.9100 2.9191 2.9283 2.9375	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
10000 10100 10200 10300 10400 10500 10600 10700 10800 10900	10005 10105 10205 10305 10405 10505 10605 10705 10806 10906	32.143 32.143 32.143 32.142 32.142 32.141 32.141 32.141 32.141	1.8153 + 0 1.8096 1.8039 1.7982 1.7925 1.7868 1.7812 1.7756 1.7699 1.7643	25794. 25776. 25757. 25738. 25719. 25700. 25682. 25643. 25644. 25625.	5.3264 +23 5.3097 5.2930 5.2764 5.2598 5.2433 5.2267 5.2103 5.1938 5.1774	1453.0 1452.5 1452.0 1451.4 1450.9 1450.4 1449.8 1449.3 1448.7 1448.2	4.9310 + 9 4.9137 4.8965 4.8793 4.8621 4.8450 4.8280 4.8110 4.7940 4.7771	2.9467 - 7 2.9560 2.9653 2.9747 2.9841 2.9935 3.0030 3.0125 3.0220 3.0316	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
11000 11100 11200 11300 11400 11500 11600 11700 11800 11900	11006 11106 11206 11306 11406 11506 11606 11707 11807	32.140 32.140 32.139 32.139 32.139 32.139 32.138 32.138 32.138 32.138	1.7587 + 0 1.7532 1.7476 1.7421 1.7365 1.7310 1.7255 1.7200 1.7145 1.7090	25606. 25588. 25569. 25550. 25531. 25512. 25494. 25475. 25456. 25437.	5.1611 +23 5.1447 5.1285 5.1122 5.0960 5.0799 5.0637 5.0477 5.0316 5.0156	1447.7 1447.1 1446.6 1446.0 1445.5 1445.0 1444.4 1443.9 1443.4	4.7602 + 9 4.7434 4.7266 4.7099 4.6732 4.6766 4.6600 4.6435 4.6270 4.6106	3.0412 - 7 3.0508 3.0605 3.0702 3.0898 3.0996 3.1095 3.1194 3.1294	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
12000 12100 12200 12300 12400 12500 12600 12700 12800 12900	12007 12107 12207 12307 12407 12507 12608 12708 12808 12908	32.137 32.137 32.136 32.136 32.136 32.135 32.135 32.135 32.135	1.7036 + 0 1.6981 1.6927 1.6873 1.6819 1.6765 1.6711 1.6658 1.6604 1.6551	25418. 25400. 25381. 25362. 25343. 25324. 25306. 25287. 25268. 25249.	4.9997 +23 4.9837 4.9678 4.9520 4.9362 4.9204 4.9047 4.8890 4.8733 4.8577	1442.3 1441.7 1441.2 1440.6 1440.1 1439.6 1439.0 1438.5 1437.9 1437.4	4.5942 + 9 4.5778 3.5615 4.55453 4.5290 4.5129 4.4968 4.4807 4.4647 4.4647	3.1393 - 7 3.1494 3.1595 3.1696 3.1797 3.1899 3.2001 3.2104 3.2207 3.2311	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
13000 13100 13200 13300 13400 13500 13600 13700 13800 13900	13008 13108 13208 13308 13409 13509 13609 13709 13809 13909	32.134 32.134 32.133 32.133 32.133 32.132 32.132 32.132 32.132 32.131	1.6497 + 0 1.6444 1.6391 1.6339 1.6286 1.6233 1.6181 1.6128 1.6076 1.6024	25230. 25211. 25193. 25174. 25155. 25136. 25117. 25099. 25080. 25061.	4.8421 +23 4.8266 4.8111 4.7956 4.7802 4.7648 4.7495 4.7341 4.7189 4.7036	1436.9 1436.3 1435.8 1435.2 1434.7 1434.1 1433.6 1433.1 1432.5	4.4327 + 9 4.4168 4.4010 4.3852 4.3537 4.3537 4.3380 4.3224 4.3068 4.2913	3.2415 - 7 3.2519 3.2624 3.2729 3.2835 3.2941 3.3047 3.3154 3.3261 3.3369	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
14000 14100 14200 14300 14500 14500 14600 14700 14800 14900	14009 14110 14210 14310 14410 14510 14610 14710 14811 14911	32.131 32.131 32.130 32.130 32.130 32.130 32.129 32.129 32.129 32.129 32.128	1.5972 + 0 1.5921 1.5869 1.5817 1.5766 1.5715 1.5663 1.5612 1.5561 1.5511	25042. 25023. 25005. 24986. 24967. 24948. 24929. 24911. 24892. 24873.	4.6884 +23 4.6733 4.6582 4.6431 4.6280 4.6130 4.5980 4.5831 4.5682 4.5533	1431.4 1430.9 1430.3 1429.8 1429.2 1428.7 1428.2 1427.1 1426.5	4.2758 + 9 4.2603 8.2449 8.2246 4.2143 4.1990 4.1838 4.1686 4.1534 4.1383	3.3477 - 7 3.3586 3.3695 3.3804 3.3914 3.4025 3.4136 3.4247 3.4359 3.4471	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

	····	Accel		Pressure				T -	<u> </u>
Altit	ude	Accel. due to	Specific weight	scale	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, ft	H, ft	gravity g, ft sec ⁻²	ω, lb ft ⁻² sec ⁻²	height H _P , ft	n, ft ⁻³	∇, ft sec⁻'		L, ft	M
7000	6998	32.152	1.9934 + 0	26359.	5.8474 +23	1469.1	5.4729 + 9	2.6842 - 7	28.964
7100	7098	32.152	1.9873	26340.	5.8294	1468.5	5.4542	2.6925	28.964
7200	7198	32.152	1.9811	26321.	5.8115	1468.0	5.4354	2.7008	28.964 28.964
7300 7400	7297 7397	32.152 32.151	1.9750 1.9689	26302. 26283.	5.7937 5.7759	1467.5	5.4168 5.3982	2.7091 2.7175	28.964
7500	7497	32.151	1.9629	26265.	5.7581	1466.4	5.3796	2.7258	28.964
7600	7597	32.151	1.9568	26246.	5.7403	1465.9	5.3611	2.7343	28.964 28.964
7700	7697	32.150	1.9507	26227.	5.7227	1465.3	5.3426	2.7427	28.964
7800 7900	7797 7897	32.150 32.150	1.9447 1.9387	26208. 26190.	5.7050 5.6874	1464.8	5.3242 5.3059	2.7512 2.7597	28.964 28.964
8000	7997	32.149	1.9327 + 0	26171.	5.6698 +23	1463.7	5.2876 + 9	2.7683 - 7	28.964
8100	8097	32.149	1.9267	26152.	5.6523	1463.2	5.2693	2.7769	28.964
8200	8197	32.149 32.148	1.9207	26133.	5.6348 5.6174	1462.7	5.2511 5.2330	2.7855 2.7941	28.964 28.964
8300 8400	8297 8397	32 140	1.9148 1.9088	26114. 26096.	5.6000	1461.6	5.2148	2.8028	28.064
8500	8497	32.148 32.148	1.9029	26077.	5.5826	1461.1	5.1968	2.8115	28.964 28.964
8600	8596	32.148	1.8969	26058.	5.5653	1460.5	5.1788	2.8203	28.964
E700	8696	32.147	1.8910	26039.	5.5481	1460.0	5.1608	2.8290	28.964
8800 8900	8796 8896	32.147 32.147	1.8852 1.8793	26021. 26002.	5.5308 5.5136	1459.5 1458.9	5.1429 5.1251	2.8378 2.8467	28.964 28.964
9000	8996	1	1.8734 + 0	25983.	5.4965 +23	1458.4	5.1072 + 9	2.8556 - 7	28.964
9100	9096	32.146 32.146	1.8676	25964.	5.4794	1457.9	5.0895	2.8645	28.964
9200	9196	32.146	1.8617	25945.	5.4623	1457.3	5.0718	2.8734	28.964
9300	9296	32.145 32.145	1.8559	25927.	5.4453	1456.8	5.0541	2.8824	28.964
9400 9500	9396 9496	32.145 32.145	1.8501 1.8443	25908. 25889.	5.4283 5.4114	1456.3	5.0365 5.0189	2.8914	28.964 28.964
9600	9596	32.144	1.8385	25870.	5.3944	1455.2	5.0014	2.9096	28.964
9700	9695	32.144 32.144	1.8328	25852.	5.3776	1454.7	4.9839	2.9187	28.964
9800 9900	9795 9895	32.144 32.144	1.8270 1.8213	25833. 25814.	5.3608 5.3440	1454.1	4.9665 4.9491	2.9279 2.9371	28.964 28.964
10000	9995	32.143	1.8155 + 0	25795.	5.3272 +23	1453.1	4.9318 + 9	2.9463 - 7	28.964
10100	10095	32.143	1.8098	25776.	5.3105	1452.5	4.9145	2.9556	28.964
10200	10195	32.143	1.8041	25758.	5.2939	1452.0	4.8973	2.9649	28.964
10300	10295	32.142	1.7985	25739.	5.2772	1451.5	4.8801	2.9742	28.964
10400 10500	10395 10495	32.142 32.142	1.7928 1.7871	25720. 25701.	5.2607 5.2441	1450.9	4.8630 4.8459	2.9836 2.9930	28.964 28.964
10600	10595	32.141	1.7815	25683.	5.2276	1449.8	4.8289	3.0024	28.964
10700	10695	32.141 32.141	1.7759	25664.	5.2112	1449.3	4.8119	3.0119	28.964 28.964
10800 10900	10794 10894	32.141 32.140	1.7703 1.7647	25645. 25626.	5.1947 5.1784	1448.8	4.7949 4.7781	3.0215 3.0310	28.964
11000	10994	32,140	1.7591 + 0	25607.	5.1620 +23	1447.7	4.7612 + 9	3.0406 - 7	28.964
11100	11094	32.140	1.7535	25589.	5.1457	1447-2	4.7444	3.0502	28.964
11200	11194	32.140	1.7479	25570.	5.1294	1446.6	4.7277	3.0599	28.964
11300	11294	32.139	1.7424	25551.	5.1132	1446.1	4.7109	3.0696	28.964
11400 11500	11394 11494	32.139 32.139	1.7369 1.7313	25532. 25514.	5.0970 5.0809	1445.5 1445.0	4.6943 4.6777	3.0794 3.0892	28.964 28.964
11600	11594	32.138	1.7258	25495.	5.0648	1444.5	4.6611	3.0990	28.964
11700	11693	32.138	1.7203	25476.	5.0487	1443.9	4.6446	3.1088	28.964
11800 11900	11793 11893	32.138 32.137	1.7149	25457. 25438.	5.0327 5.0167	1443.4	4.6281 4.6117	3.1187 3.1287	28.964 28.964
12000	11993	32.137	1.7040 + 0	25420.	5.0008 +23	1442.3	4.5953 + 9	3.1387 - 7	28.964
12100	12093	32.137	1.6985	25401.	4.9848	1441.8	4.5790	3.1487	28.964
12200	12193	32.136	1.6931	25382.	4.9690	1441.2	4.5627	3.1587	28.964
12300	12293	32.136	1.6877	25363.	4.9531	1440.7	4.5464	3.1688	28.964
12400 12500	12393 12493	32.136 32.136	1.6823 1.6769	25345. 25326.	4.9373 4.9216	1440.1	4.5302 4.5141	3.1790 3.1891	28.964 28.964
12600	12592	32.130	1.6715	25320. 25307.	4.9059	1439.0	4.4980	3.1994	28.964
12700	12692	32.135	1.6662	25288.	4.8902	1438.5	4.4819	3.2096	28.964
12800 12900	12792 12892	32.135 32.134	1.6608	25269. 25251.	4.8746 4.8590	1438.0 1437.4	4.4659 4.4499	3.2199 3.2303	28.964 28.964
13000	12992	32.134	1.6502 + 0	25232.	4.8434 +23	1436.9	4.4340 + 9	3.2406 - 7	28.964
13100	13092	32.134	1.6449	25213.	4.8279	1436.4	4.4181	3.2511	28.964
13200	13192	32.133	1.6396	25194.	4-8124	1435.8	4.4023	3.2615	28.964
13300	13292	32.133	1.6343	25175.	4.7969	1435.3	¥.3865	3.2720	28.964
13400 13500	13391 13491	32.133 32.132	1.6290 1.6238	25157. 25138.	4.7815 4.7662	1434.7	4.3708 4.3551	3.2826 3.2931	28.964 28.964
13600	13591	32.132	1.6185	25119.	4.7508	1433.6	4.3394	3.3038	28.964
13700	13691	32.132	1.6133	25100.	4.7355	1433.1	4.3238	3.3144	28.964
13800 13900	13791 13891	32.132 32.131	1.6081 1.6029	25082. 25063.	4.7203 4.7050	1432.6	4.3082 4.2927	3.3252 3.3359	28.964 28.964
14000	13991	32.131	1.5977 + 0	25044.	4.6899 +23	1431.5	4.2772 + 9	3.3467 - 7	28.964
14100	14090	32.131	1.5925	25025.	4.6747	1430.9	4.2618	3.3576	28.964
14200	14190	32.130	1.5874	25006.	4.6596	1430.4	4.2464	3.3684	28.964
14300	14290	32.130	1.5822	24988.	4.6445	1429.8	4.2311	3.3794	28.964
14400	14390	32.130	1.5771	24969.	4.6295 4.6145	1429.3	4.2158 h.2005	3.3903 3.4014	28.964 28.964
14500	14490 14590	32.129 32.129	1.5720 1.5669	24950. 24931.	4.6145 4.5996	1428.8	4.2005 4.1853	3.4014	28.964
14700	14690	32.129	1.5618	24912.	4.5846	1427.7	4.1701	3.4235	28.964
14800	14790	32.128	1.5567	24894.	4.5698	1427.1	4.1550	3.4347	28.964
14900	14889	32.128	1.5516	24875.	4.5549	1426.6	4.1399	3.4459	28.964
		<u></u>				<u> </u>		<u> </u>	<u>L</u>

Altif	rude	Accel. due to	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
H, ft	Z, ft	gravity g,ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	H _P , ft	n, ft ^{-š}	∇, ft sec ⁻¹	ν , sec ⁻¹	L, ft	М
15000 15100 15200 15300 15400 15500 15600 15700 15800 15900	15011 15111 15211 15311 15411 15512 15612 15712 15812 15912	32.128 32.127 32.127 32.127 32.127 32.126 32.126 32.126 32.125 32.125	1.5460 + 0 1.5410 1.5359 1.5359 1.5259 1.5209 1.5159 1.5109 1.5059	24854. 24855. 24816. 24798. 24779. 24760. 24741. 24742. 24704. 24685.	4.5385 +23 4.5237 4.5090 4.4942 4.4796 4.4649 4.4503 4.4358 4.4212 4.4067	1426.0 1425.4 1424.9 1424.3 1423.8 1423.2 1422.7 1422.1 1421.6 1421.0	4.1233 + 9 4.1083 4.0933 4.0784 4.0635 4.0487 4.0339 4.0191 4.0044 3.9897	3.4583 - 7 3.4696 3.4810 3.4924 3.5038 3.5153 3.5269 3.5384 3.5501 3.5617	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
16000 16100 16200 16300 16400 16500 16600 16700 16800	16012 16112 16213 16313 16413 16513 16613 16713 16814 16914	32.125 32.124 32.124 32.124 32.123 32.123 32.123 32.123 32.123 32.122	1.4960 + 0 1.4911 1.4862 1.4813 1.4764 1.4715 1.4667 1.4618 1.4570 1.4521	24666- 24647- 24628- 24609- 24591- 24572- 24553- 24553- 24515- 24497-	4.3923 +23 4.3778 4.3635 4.3491 4.3348 4.3205 4.3063 4.2921 4.2779 4.2638	1420.5 1419.9 1419.4 1418.8 1418.3 1417.7 1417.2 1416.6 1416.1	3.9751 + 9 3.9605 3.9460 3.9315 3.9170 3.9026 3.8882 3.8739 3.8596 3.8454	3.5735 - 7 3.5852 3.5971 3.6089 3.6209 3.6328 3.6448 3.6569 3.6569 3.6690	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
17000 17100 17200 17300 17400 17500 17600 17700 17800 17900	17014 17114 17214 17314 17415 17515 17615 17715 17815 17915	32.122 32.121 32.121 32.121 32.120 32.120 32.120 32.120 32.119 32.119	1.4473 + 0 1.4425 1.4377 1.4330 1.4282 1.4234 1.4187 1.4180 1.4092 1.4095	24478. 24459. 24421. 24422. 24384. 24365. 24346. 24327. 24308.	4.2497 +23 4.2356 4.2216 4.2076 4.1936 4.1797 4.1658 4.1520 4.1381 4.1244	1415.0 1414.4 1413.9 1413.3 1412.8 1412.2 1411.7 1411.1 1410.6 1410.0	3.8311 • 9 3.8170 3.8029 3.7888 3.7747 3.7607 3.7468 3.7329 3.7190 3.7051	3.6934 - 7 3.7057 3.7180 3.7303 3.7427 3.7552 3.7677 3.7803 3.7929 3.8056	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
18000 18100 18200 18300 18400 18500 18600 18700 18800	18016 18116 18216 18316 18416 18516 18617 18717 18817	32.119 32.118 32.118 32.117 32.117 32.117 32.117 32.116 32.116	1.3998 + 0 1.3952 1.3905 1.38058 1.3812 1.3766 1.3719 1.3673 1.3627	24289. 24271. 24252. 24233. 24214. 24195. 24176. 24158. 24139. 24120.	4.1106 +23 4.0969 4.0832 4.0696 4.0560 4.0424 4.0289 4.0154 4.0019 3.9885	1409.5 1408.9 1408.4 1407.8 1407.3 1406.7 1406.2 1405.6 1405.0	3.6913 + 9 3.6776 3.6639 3.6502 3.6366 3.6230 3.6094 3.5959 3.5824 3.5690	3.8183 - 7 3.8311 3.8439 3.8568 3.8697 3.8827 3.8958 3.9089 3.9220 3.9352	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
19000 19100 19200 19300 19400 19500 19600 19700 19800 19900	19017 19118 19218 19318 19418 19518 19618 19719 19819	32.115 32.115 32.115 32.115 32.114 32.114 32.114 32.113 32.113	1.3536 + 0 1.3444 1.3399 1.3354 1.3309 1.3264 1.3219 1.3174 1.3129	24101. 24082. 24064. 24045. 24026. 24007. 23988. 23969. 23951. 23932.	3.9751 +23 3.9617 3.9484 3.9351 3.9219 3.9086 3.8954 3.8823 3.8692 3.8561	1403.9 1403.4 1402.8 1402.3 1401.7 1401.2 1400.6 1400.0 1399.5 1398.9	3.5556 + 9 3.5423 3.5289 3.5157 3.5024 3.4892 3.4761 3.4630 3.4499 3.4368	3.9485 - 7 3.9618 3.9752 3.9886 4.0021 4.0156 4.0292 4.0429 4.0566 4.0704	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
20000 20100 20200 20300 20400 20500 20600 20700 20800 20900	20019 20119 20220 20320 20420 20520 20620 20721 20821 20921	32.112 32.112 32.112 32.111 32.111 32.111 32.111 32.110 32.110	1.3085 + 0 1.30%0 1.2996 1.2952 1.2907 1.2863 1.2820 1.2776 1.27732	23913. 23894. 23875. 23856. 23838. 23819. 23800. 23781. 23762. 23743.	3.8430 +23 3.8300 3.8170 3.8040 3.7911 3.7782 3.7654 3.7526 3.7398 3.7270	1398.4 1397.8 1397.3 1396.7 1396.1 1395.6 1395.0 1394.5 1393.9	3.4238 + 9 3.4109 3.3980 3.3851 3.3722 3.3594 3.3467 3.3339 3.3212 3.3086	4.0842 - 7 4.0981 4.1120 4.11260 4.11401 4.1542 4.1684 4.1826 4.1969 4.2113	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
21000 21100 21200 21300 21400 21500 21600 21700 21800 21900	21021 21121 21222 21322 21422 21522 21622 21723 21823 21923	32.109 32.109 32.109 32.108 32.108 32.108 32.107 32.107 32.107	1.2645 + 0 1.2602 1.2559 1.2516 1.2473 1.2430 1.2384 1.2344 1.2302 1.2259	23725. 23706. 23687. 23668. 23649. 23630. 23611. 23593. 23574. 23555.	3.7143 +23 3.7016 3.6890 3.6764 3.6638 3.6512 3.6387 3.6262 3.6137 3.6013	1392.8 1392.2 1391.7 1391.1 1390.5 1390.0 1389.4 1388.9 1388.3 1387.7	3.2960 + 9 3.2834 3.2708 3.2583 3.2459 3.2335 3.2211 3.2087 3.1841	4.2257 - 7 4.2402 4.2547 4.2694 4.2840 4.2988 4.3135 4.3284 4.3433 4.3583	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
22000 22100 22200 22300 22400 22500 22600 22700 22800 22900	22023 22123 22224 22324 22424 22524 22625 22725 22825 22925	32.106 32.106 32.106 32.105 32.105 32.105 32.104 32.104 32.104 32.104	1.2217 + 0 1.2175 1.2133 1.2091 1.2049 1.2049 1.1966 1.1924 1.1883 1.1842	23536. 23517. 23498. 23480. 23441. 23442. 23423. 23404. 23385. 23367.	3.5889 +23 3.5766 3.5643 3.5520 3.5397 3.5275 3.5153 3.5031 3.4910 3.4789	1387.2 1386.6 1386.1 1385.5 1384.9 1384.4 1383.8 1383.2 1382.7	3.1719 + 9 3.1597 3.1475 3.1354 3.1233 3.1113 3.0992 3.0873 3.0753 3.0634	4.3733 - 7 4.3885 4.4036 4.4189 4.4342 4.4495 4.4650 4.4805 4.4961 4.5117	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

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Altit	ude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, ft	H, ft	gravity g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	height H _P , ft	n, ft ⁻³	∇, ft sec⁻'		L, ft	M
15000 15100 15200 15300 15400 15500 15600 15700 15800 15900	14989 15089 15189 15289 15389 15488 15588 15688 15788	32.128 32.128 32.127 32.127 32.127 32.126 32.126 32.126 32.125	1.5465 + 0 1.5415 1.5365 1.5314 1.5264 1.5214 1.5165 1.5115 1.5065	24856. 24837. 24819. 24800. 24781. 24762. 24743. 24725. 24706. 24687.	4.5401 +23 4.55253 4.5106 4.4959 4.4812 4.4666 4.4520 4.4520 4.4520 4.45230 4.4085	1426.0 1425.5 1424.9 1424.4 1423.8 1423.3 1422.7 1422.2 1421.7	4.1249 + 9 4.1099 4.0950 4.0800 4.0652 4.05504 4.0356 4.0208 4.0061 3.9915	3.4571 - 7 3.4684 3.4797 3.4911 3.5025 3.5140 3.5255 3.5371 3.5487 3.5603	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
16000 16100 16200 16300 16400 16500 16600 16700 16800 16900	15988 16088 16187 16287 16387 16487 16587 16587 16687 16786 16886	32.125 32.124 32.124 32.124 32.123 32.123 32.123 32.123 32.123	1.4967 + 0 1.4917 1.4868 1.4819 1.4770 1.4722 1.4673 1.4625 1.4576	24668- 24649- 24631- 24612- 24593- 24574- 24555- 24537- 24518- 24499-	4.3740 +23 4.3776 4.3653 4.3509 4.3366 4.3224 4.3081 4.22940 4.2798 4.2657	1420.6 1420.0 1419.5 1418.9 1418.4 1417.8 1417.3 1416.7 1416.2 1415.6	3.9769 + 9 3.9623 3.9478 3.9333 3.9189 3.9045 3.8901 3.8758 3.8615 3.8473	3.5720 - 7 3.5838 3.5956 3.6074 3.6193 3.6313 3.6432 3.6553 3.6674 3.6795	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
17000 17100 17200 17300 17400 17500 17600 17700 17800 17900	16986 17086 17186 17286 17385 17485 17585 17685 17785	32.122 32.121 32.121 32.120 32.120 32.120 32.120 32.120 32.119	1.4480 + 0 1.4432 1.4384 1.4336 1.4289 1.4241 1.4194 1.4197 1.4100 1.4053	24480. 24462. 2443. 24424. 24405. 24386. 24349. 24339. 24311.	4.2516 +23 4.2376 4.2236 4.2096 4.1956 4.1817 4.1679 4.1540 4.1402 4.1265	1415.1 1414.5 1414.0 1413.4 1412.3 1411.8 1411.2 1410.7	3.8331 + 9 3.8190 3.8049 3.7908 3.7768 3.7628 3.7488 3.7488 3.7349 3.7211 3.7073	3.6917 - 7 3.7039 3.7162 3.7286 3.7409 3.7534 3.7659 3.7784 3.7910 3.8036	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
18000 18100 18200 18300 18400 18500 18600 18700 18800	17984 18084 18184 18284 18384 18484 18583 18683 18683	32.119 32.118 32.118 32.117 32.117 32.117 32.116 32.116	1.4006 + 0 1.3959 1.3912 1.3866 1.3819 1.3773 1.3727 1.3681 1.3635 1.3589	24292. 24274. 24255. 24236. 24217. 24198. 24180. 24161. 24142. 24123.	4.1128 +23 4.0991 4.0854 4.0718 4.0782 4.0082 4.0311 4.0176 4.0082 3.9908	1409.6 1409.0 1408.5 1407.9 1407.3 1406.8 1406.2 1405.7 1405.7 1405.1	3.6935 + 9 3.6798 3.6661 3.6524 3.6388 3.6252 3.6117 3.5982 3.5847 3.5713	3.8163 - 7 3.8291 3.8819 3.8547 3.8676 3.8806 3.8936 3.99067 3.9198 3.9330	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
19000 19100 19200 19300 19400 19500 19600 19700 19800	18983 19083 19182 19282 19382 19482 19582 19681 19781	32.115 32.115 32.115 32.115 32.114 32.114 32.114 32.113 32.113	1.3544 + 0 1.3498 1.3453 1.3407 1.3362 1.3317 1.3272 1.3227 1.3182 1.3138	24104. 24086. 24067. 24048. 24029. 24010. 23992. 23973. 23954. 23935.	3.9774 +23 3.9641 3.9508 3.9375 3.9242 3.9110 3.8979 3.8847 3.8716 3.8585	1404.0 1403.5 1402.9 1402.4 1401.8 1401.3 1400.7 1400.1 1399.6 1399.0	3.5579 + 9 3.5446 3.5313 3.5180 3.5048 3.4916 3.4785 3.4654 3.4523 3.4393	3.9462 - 7 3.9595 3.9728 3.9862 3.9997 4.0132 4.0267 4.0064 4.0540 4.0678	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
20000 20100 20200 20300 20400 20500 20600 20700 20800 20900	19981 20081 20180 20280 20380 20480 20580 20579 20779	32.112 32.112 32.112 32.111 32.111 32.111 32.111 32.110 32.110	1.3093 + 0 1.3049 1.3004 1.2960 1.2916 1.2872 1.2828 1.2785 1.2741 1.2698	23916. 23898. 23879. 23870. 23841. 23822. 23804. 23785. 23766. 23747.	3.8455 +23 3.8325 3.8195 3.8066 3.7937 3.7808 3.7680 3.7552 3.7424 3.7297	1398.5 1397.9 1397.4 1396.8 1396.2 1395.7 1395.1 1394.6 1394.0	3.4263 + 9 3.4134 3.4005 3.3876 3.3748 3.3620 3.3492 3.3365 3.3239 3.3112	4.0816 - 7 4.0954 4.1093 4.1233 4.1373 4.1514 4.1655 4.1797 4.1940 4.2083	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
21000 21100 21200 21300 21400 21500 21600 21700 21800 21900	20979 21079 21178 21278 21378 21478 21578 21677 21777 21877	32.109 32.109 32.109 32.108 32.108 32.107 32.107 32.107	1.2654 + 0 1.2611 1.2568 1.2555 1.2482 1.2439 1.2397 1.2354 1.2312	23728. 23710. 23691. 23672. 23653. 23616. 23597. 23578. 23559.	3.7170 +23 3.7043 3.6917 3.66791 3.6665 3.6540 3.6415 3.6290 3.6166 3.6042	1392.9 1392.3 1391.8 1391.2 1390.1 1390.1 1389.5 1389.0 1388.4 1387.9	3.2986 + 9 3.2861 3.2735 3.2611 3.2486 3.2362 3.2238 3.2115 3.1992 3.1869	4.2227 - 7 4.2371 4.2516 4.2662 4.2808 4.2955 4.3102 4.3250 4.3359 4.3549	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
22000 22100 22200 22300 22400 22500 22600 22700 22800 22900	21977 22077 22176 22276 22376 22476 22576 22575 22675 22775 22875	32.106 32.106 32.106 32.105 32.105 32.105 32.104 32.104 32.104	1.2227 + 0 1.2185 1.2143 1.2101 1.2059 1.2018 1.1976 1.1934 1.1893 1.1852	23540. 23522- 23503. 23484. 23465. 23428. 23499. 23390. 23371.	3.5918 +23 3.5795 3.5672 3.5549 3.5426 3.5304 3.5183 3.5061 3.4940 3.4819	1387.3 1386.7 1386.2 1385.6 1385.1 1384.5 1383.9 1383.4 1382.8 1382.3	3.1747 + 9 3.1625 3.1504 3.1383 3.1262 3.1142 3.1022 3.0902 3.0783 3.0664	4.3699 - 7 4.3649 4.4000 4.4152 4.4305 4.4458 4.4612 4.4767 4.4922 4.5078	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

		Τ		Drossura					
Altit	ude	Accel.	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
H, ft	Z, ft	gravity g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	⊽, ft sec⁻'	ν, sec ⁻¹	L, ft	М
23000 23100 23200 23300 23400 23500 23600 23700 23800 23900	23025 23126 23226 23326 23426 23527 23627 23727 23827 23827	32.103 32.103 32.102 32.102 32.102 32.102 32.101 32.101 32.101 32.101	1.1800 + 0 1.1759 1.1718 1.1677 1.1637 1.1596 1.1556 1.1515 1.1475	23348. 23329. 23310. 23291. 23272. 23253. 23253. 23216. 23178.	3.4668 +23 3.4548 3.4428 3.4308 3.4189 3.4070 3.3951 3.3833 3.3714 3.3597	1381.5 1381.0 1380.4 1379.9 1379.3 1378.7 1378.2 1377.6 1377.6 1377.0	3.0515 + 9 3.0397 3.0279 3.0161 3.0044 2.9927 2.9811 2.9694 2.9579 2.9463	4.5274 - 7 4.5432 4.5590 4.5749 4.5909 4.6069 4.6230 4.6392 4.6555 4.6718	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
24000 24100 24200 24300 24300 24500 24600 24700 24800 24900	24028 24128 24228 24328 24429 24529 24629 24729 24830 24930	32.100 32.100 32.099 32.099 32.099 32.098 32.098 32.098 32.098	1.1395 + 0 1.1355 1.1315 1.1275 1.1235 1.1196 1.1156 1.1117 1.1078 1.1039	23159. 23140. 23122. 23103. 23084. 23065. 23046. 23027. 23008. 22990.	3.3479 +23 3.3362 3.3245 3.3129 3.3012 3.2896 3.2781 3.2666 3.2551 3.2436	1375.9 1375.3 1374.8 1374.2 1373.6 1373.1 1372.5 1371.9 1371.4 1370.8	2.9348 + 9 2.9233 2.9119 2.9005 2.8891 2.8778 2.8565 2.8552 2.8552 2.8328	4.6882 - 7 4.7047 4.7212 4.7378 4.7545 4.7712 4.7881 4.8050 4.8219 4.8390	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
25000 25100 25200 25300 25400 25500 25600 25700 25800 25900	25030 25130 25230 25331 25431 25531 25631 25732 25832 25932	32.097 32.097 32.096 32.096 32.096 32.095 32.095 32.095 32.094 32.094	1.0999 + 0 1.0961 1.0922 1.0883 1.0844 1.0806 1.0768 1.0729 1.0691	22971. 22952. 22933. 22914. 22895. 22876. 22858. 22839. 22820. 22801.	3.2321 +23 3.2207 3.2094 3.1980 3.1867 3.1754 3.1642 3.1530 3.1418 3.1306	1370.2 1369.6 1369.1 1368.5 1367.9 1367.4 1366.8 1366.2 1365.7	2.8216 + 9 2.8105 2.7794 2.7884 2.7773 2.7664 2.7554 2.7445 2.7445 2.728	4.8561 - 7 4.8733 4.8906 4.9079 4.9253 4.9428 4.9604 4.9781 4.9958 5.0136	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
26000 26100 26200 26300 26400 26500 26700 26800 26900	26032 26133 26233 26333 26333 26534 26634 26734 26834 26935	32.094 32.094 32.093 32.093 32.093 32.092 32.092 32.092 32.091 32.091	1.0615 + 0 1.0577 1.0539 1.0502 1.0464 1.0427 1.0389 1.0352 1.0315	22782. 22763. 22744. 22726. 22707. 22688. 22669. 22650. 22631. 22612.	3.1195 +23 3.1084 3.0973 3.0863 3.0753 3.0643 3.0533 3.0424 3.0315 3.0207	1364.5 1363.9 1363.4 1362.8 1362.2 1361.7 1361.1 1360.5 1359.9	2.7119 + 9 2.7012 2.6904 2.6797 2.6690 2.6584 2.6478 2.6478 2.6266 2.6161	5.0315 - 7 5.0495 5.0675 5.0856 5.1039 5.1221 5.1405 5.1590 5.1775 5.1775	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
27000 27100 27200 27300 27400 27500 27600 27700 27800 27900	27035 27135 27236 27336 27436 27536 27537 27637 27737 27837	32.091 32.090 32.090 32.090 32.090 32.089 32.089 32.089 32.088 32.088	1.0241 + 0 1.0204 1.0167 1.0131 1.0094 1.0058 1.0021 9.9851 - 1 9.9490 9.9130	22594. 22575. 22556. 22537. 22518. 22499. 22480. 22462. 22443. 22424.	3.0098 +23 2.9990 2.9883 2.9775 2.9668 2.9561 2.9455 2.9348 2.9243 2.9137	1358.8 1358.2 1357.6 1357.1 1356.5 1355.9 1355.3 1354.8 1354.2	2.6056 + 9 2.5952 2.5848 2.5744 2.5641 2.5537 2.5535 2.5332 2.5230 2.5128	5.2148 - 7 5.2336 5.2524 5.2714 5.2704 5.3095 5.3287 5.3287 5.3480 5.3674 5.3869	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
28000 28100 28200 28300 28400 28500 28600 28700 28800 28900	28038 28138 28238 28338 28439 28539 28639 28740 28840 28940	32.088 32.087 32.087 32.087 32.086 32.086 32.086 32.085 32.085	9.8770 ~ 1 9.8412 9.8054 9.7698 9.7343 9.6988 9.6635 9.6282 9.5931 9.5581	22405. 22386. 22367. 22348. 22330. 22311. 22292. 22273. 22254. 22235.	2.9032 +23 2.8927 2.8822 2.8717 2.8613 2.8509 2.8406 2.8302 2.8199 2.8096	1353.0 1352.5 1351.9 1351.3 1350.7 1350.2 1349.6 1349.0 1348.4 1347.9	2.5027 + 9 2.4925 2.4825 2.4724 2.4624 2.4524 2.4524 2.4325 2.4226 2.4128	5.4064 - 7 5.4260 5.4456 5.4855 5.5055 5.5256 5.5256 5.5863	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
29000 29100 29200 29300 29400 29500 29600 29700 29800 29900	29040 29141 29241 29341 29442 29542 29642 29742 29843 29943	32.085 32.084 32.084 32.084 32.083 32.083 32.083 32.082 32.082 32.082	9.5231 - 1 9.4883 9.4535 9.4189 9.3843 9.3498 9.3155 9.2812 9.2470 9.2130	22216. 22198. 22179. 22160. 22141. 22122. 22103. 22084. 22065. 22047.	2.7994 +23 2.7892 2.7790 2.7688 2.7587 2.7486 2.7385 2.7285 2.7185 2.7085	1347.3 1346.7 1346.1 1345.5 1345.0 1344.4 1343.8 1343.2 1342.6 1342.1	2.4029 + 9 2.3931 2.3834 2.3736 2.3639 2.3543 2.3446 2.3350 2.3254 2.3159	5.6068 - 7 5.6273 5.6480 5.6687 5.6895 5.7104 5.77314 5.77525 5.7737 5.7950	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
30000 30100 30200 30300 30400 30500 30600 30700 30800 30900	30043 30144 30244 30344 30545 30545 30645 30745 30846	32.082 32.081 32.081 32.080 32.080 32.080 32.080 32.079 32.079	9.1790 - 1 9.1451 9.1113 9.0777 9.0441 9.0106 8.9772 8.9439 8.9106 8.8775	22028. 22009. 21990. 21971. 21952. 21933. 21914. 21876. 21877. 21858.	2.6985 +23 2.6886 2.6787 2.6688 2.6589 2.6491 2.6491 2.6393 2.6296 2.6198 2.6101	1341.5 1340.9 1340.3 1339.7 1339.1 1338.6 1338.0 1337.4 1336.8 1336.2	2.3064 + 9 2.2969 2.2874 2.2780 2.2686 2.2592 2.2499 2.2406 2.2313 2.2221	5.8164 - 7 5.8379 5.8595 5.8612 5.9030 5.9249 5.9249 5.9469 5.9689 5.9911 6.0134	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

					ODE, ENGE				
Altii	ude	Accel. due to gravity	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, ft	H, ft	g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec¯'	ν, sec ⁻¹	L, ft	M
23000 23100 23200 23300 23400 23500 23600 23700 23800 23900	22975 23074 23174 23274 23374 23474 23573 23673 23673 23673	32.103 32.103 32.103 32.102 32.102 32.102 32.101 32.101 32.101 32.101	1.1811 + 0 1.1770 1.1729 1.1688 1.1647 1.1607 1.1566 1.1526 1.1486	23352. 23334. 23315. 23296. 23277. 23258. 23240. 23221. 23202. 23183.	3.4699 +23 3.4579 3.4459 3.4339 3.4220 3.4101 3.3983 3.3864 3.3746 3.3629	1381.7 1381.1 1380.6 1380.0 1379.4 1378.9 1378.3 1377.7 1377.2 1376.6	3.0545 + 9 3.0427 3.0309 3.0192 3.0075 2.9958 2.9882 2.9726 2.9610 2.9495	4.5234 - 7 4.5391 4.5549 4.5708 4.5867 4.6027 4.6187 4.6349 4.6511 4.6673	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
24000 24100 24200 24300 24500 24600 24600 24700 24800 24900	23972 24072 24172 24172 24272 24371 24571 24571 24671 24870	32.100 32.100 32.100 32.099 32.099 32.099 32.098 32.098 32.098	1.1406 + 0 1.1366 1.1326 1.1286 1.1247 1.1207 1.1168 1.1128 1.1089 1.1050	23164. 23146. 23127. 23108. 23089. 23070. 23052. 23033. 23014. 22995.	3.3512 +23 3.3395 3.3278 3.3161 3.3045 3.2930 3.2814 3.2699 3.2584 3.2470	1376.0 1375.5 1374.9 1374.4 1373.2 1373.2 1372.7 1372.1 1371.5	2.9380 + 9 2.9265 2.9151 2.9037 2.8924 2.8810 2.8698 2.8585 2.8585 2.8361	4.6837 - 7 4.7001 4.7165 4.7331 4.7497 4.7664 4.7832 4.8000 4.8169 4.8339	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
25000 25100 25200 25300 25400 25500 25600 25700 25800 25900	24970 25070 25170 251269 25369 25469 25569 25668 25768 25868	32.097 32.097 32.096 32.096 32.096 32.096 32.095 32.095 32.095 32.095	1.1011 + 0 1.0972 1.0934 1.0895 1.0856 1.0818 1.0780 1.0741 1.0703	22976. 22958. 22939. 22920. 22901. 22882. 22845. 22845. 22847.	3.2356 +23 3.2242 3.2128 3.2015 3.1902 3.1789 3.1677 3.1565 3.1453 3.1342	1370.4 1369.8 1369.3 1368.7 1368.1 1367.5 1367.0 1366.4 1365.8	2.8250 + 9 2.8139 2.8028 2.7918 2.7808 2.7698 2.7588 2.7588 2.7758	4.8510 - 7 4.8681 4.8853 4.9026 4.9200 4.9374 4.9549 4.9725 4.9901 5.0079	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
26000 26100 26200 26300 26400 26500 26700 26800 26900	25968 26067 26167 26267 26367 26366 26566 26566 26766 26865	32.094 32.094 32.093 32.093 32.092 32.092 32.092 32.092 32.092 32.091	1.0627 + 0 1.0589 1.0552 1.05514 1.0477 1.0439 1.0402 1.0365 1.0328 1.0291	22788. 22769. 22751. 22732. 22713. 22694. 22675. 22657. 22638. 22619.	3.1231 +23 3.1120 3.1009 3.0899 3.0789 3.0570 3.0570 3.0461 3.0353 3.0244	1364.7 1364.1 1363.6 1363.0 1362.4 1361.9 1361.3 1360.7 1360.1 1359.6	2.7154 + 9 2.7047 2.6939 2.6832 2.6726 2.6620 2.6514 2.6408 2.6303 2.6198	5.0257 - 7 5.0436 5.0616 5.0796 5.0978 5.1160 5.1343 5.1526 5.1711 5.1896	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
27000 27100 27200 27300 27400 27500 27600 27700 27800 27900	26965 27065 27165 27264 27364 27364 27564 27663 27763 27863	32.091 32.091 32.090 32.090 32.090 32.089 32.089 32.089 32.088 32.088	1.0254 + 0 1.0217 1.0180 1.0144 1.0107 1.0035 9.9984 - 1 9.9624	22600 • 22581 • 22563 • 22544 • 22525 • 22506 • 22487 • 22450 • 22431 •	3.0136 +23 3.0028 2.9921 2.9813 2.9707 2.9600 2.9494 2.9387 2.9282 2.9176	1359.0 1358.4 1357.8 1357.3 1356.7 1356.1 1355.6 1355.0 1354.4 1353.8	2.6093 + 9 2.5989 2.5885 2.5781 2.5678 2.5575 2.5472 2.5370 2.5268 2.5166	5.2083 - 7 5.2270 5.2457 5.2646 5.2836 5.3026 5.3217 5.3409 5.3602 5.3796	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
28000 28100 28200 28300 28400 28500 28600 28700 28800 28900	27962 28062 28162 28262 28361 28461 28561 28661 28760 28860	32.088 32.087 32.087 32.087 32.087 32.086 32.086 32.086 32.085 32.085	9.8905 - 1 9.85%7 9.8190 9.7835 9.7480 9.7126 9.6773 9.6421 9.6071 9.5721	22412. 22393. 22374. 22356. 22357. 22318. 22299. 22280. 22262.	2.9071 +23 2.8966 2.8862 2.8757 2.8653 2.8550 2.8846 2.8343 2.8240 2.8138	1353.3 1352.7 1352.1 1351.5 1351.0 1350.4 1349.8 1349.2 1348.7 1348.1	2.5065 + 9 2.4964 2.4863 2.4763 2.4663 2.4563 2.4463 2.4463 2.4265 2.4167	5.3991 - 7 5.4186 5.4382 5.4580 5.4778 5.4977 5.5177 5.5378 5.5579	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
29000 29100 29200 29300 29400 29500 29600 29700 29800	28960 29059 29159 29259 29359 29458 29558 29658 29757 29857	32.085 32.084 32.084 32.084 32.083 32.083 32.083 32.083 32.082 32.082	9.5372 - 1 9.5024 9.4677 9.4331 9.3986 9.3642 9.3299 9.2257 9.2216	22224. 22205. 22186. 22162. 22149. 22130. 22111. 22092. 22073. 22055.	2.8035 +23 2.7933 2.7832 2.7730 2.7629 2.7528 2.7427 2.7327 2.7327 2.7227	1347.5 1346.9 1346.4 1345.8 1345.2 1344.6 1344.0 1343.5 1342.9 1342.3	2.4069 + 9 2.3971 2.3873 2.3776 2.3679 2.3583 2.3487 2.3391 2.3295 2.3200	5.5985 - 7 5.6190 5.6395 5.6602 5.6809 5.7017 5.7226 5.7436 5.7437	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
30000 30100 30200 30300 30400 30500 30600 30700 30800 30900	29957 30057 30156 30256 30356 30455 30555 30655 30755 30854	32.082 32.081 32.081 32.080 32.080 32.080 32.080 32.079 32.079	9.1936 - 1 9.1598 9.1261 9.0924 9.0589 9.0255 8.9921 8.9928 8.9257 8.8927	22036. 22017. 21998. 21979. 21961. 21942. 21923. 21924. 21885. 21866.	2.7028 +23 2.6929 2.6830 2.6731 2.6633 2.6535 2.6437 2.6340 2.6242 2.6145	1341.7 1341.1 1340.6 1340.0 1339.4 1338.8 1338.2 1337.7 1337.1	2.3105 + 9 2.3010 2.2915 2.2821 2.2727 2.2634 2.2541 2.22448 2.2355 2.2263	5.8072 - 7 5.8286 5.8501 5.8716 5.8933 5.9151 5.9370 5.9590 5.9810 6.0032	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

TABLE V.—Continued

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altif	rude	Accel.	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
H, ft	Z, ft	gravity g, ft sec ⁻²	weigiii ω, lb ft ⁻² sec ⁻²	height H _P , ft	n, ft ⁻³	V, ft sec'	ν , sec ⁻¹	L, ft	M
31000 31100 31200 31300 31400 31500 31600 31700 31800 31900	310%6 311%6 312%7 313%7 313%7 315%8 316%8 316%8 318%9 319%9	32.078 32.078 32.078 32.078 32.077 32.077 32.077 32.076 32.076	8.8445 - 1 8.8116 8.7787 8.7460 8.7133 8.6808 8.6483 8.6160 8.5837 8.5515	21839. 21820. 21801. 21782. 21763. 21745. 21726. 21707. 21688. 21669.	2.6004 +23 2.5908 2.5911 2.5715 2.5620 2.5524 2.5429 2.5334 2.5239 2.5145	1335.7 1335.1 1334.5 1333.9 1333.3 1332.7 1332.1 1331.6 1331.0 1330.4	2.2129 + 9 2.2037 2.1945 2.1854 2.1673 2.1582 2.1492 2.1493 2.1313	6.0358 - 7 6.0583 6.0809 6.1036 6.1264 6.1294 6.1724 6.1955 6.2187 6.2421	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
32000 32100 32200 32300 32400 32500 32500 32600 32700 32800 32900	32049 32149 32250 32350 32450 32551 32651 32751 32852 32952	32.075 32.075 32.075 32.074 32.074 32.074 32.074 32.073 32.073 32.073	8.5194 - 1 8.4874 8.4555 8.4237 8.3920 8.3604 8.3288 8.2974 8.2660 8.2347	21650. 21631. 21612. 21594. 21575. 21556. 21537. 21518. 21499. 21480.	2.5051 +23 2.4957 2.4863 2.4770 2.4677 2.4584 2.4492 2.4399 2.4308 2.4216	1329.8 1329.2 1328.6 1328.0 1327.5 1326.9 1326.3 1325.7 1325.1 1324.5	2-1224 + 9 2-1135 2-1047 2-0958 2-0871 2-0783 2-0696 2-0608 2-0522 2-0435	6-2655 - 7 6-2891 6-3128 6-3365 6-3604 6-3644 6-4085 6-4571 6-4816	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
33000 33100 33200 33300 33400 33500 33700 33800 33900	33052 33153 33253 33353 33454 33554 33654 33755 33855 33955	32.072 32.072 32.072 32.071 32.071 32.071 32.070 32.070 32.070 32.070	8.2036 - 1 8.1725 8.1415 8.1106 8.0798 8.0491 8.0184 7.9879 7.9574	21461. 21443. 21424. 21405. 21386. 21367. 21348. 21329. 21310. 21292.	2.4124 +23 2.4033 2.3942 2.3852 2.3761 2.3671 2.3581 2.3492 2.3402 2.3313	1323.9 1323.3 1322.8 1322.2 1321.6 1321.0 1320.4 1319.8 1319.2 1318.6	2.0349 + 9 2.0263 2.0177 2.0092 2.0007 1.9922 1.9838 1.9753 1.9670	6.5061 - 7 6.5308 6.5556 6.5805 6.6056 6.6307 6.6550 6.6814 6.7069 6.7325	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
34000 34100 34200 34300 34400 34500 34600 34700 34800 34900	34056 34156 34256 34357 34457 34557 34658 34758 34858 34959	32.069 32.069 32.069 32.068 32.068 32.068 32.067 32.067 32.067	7.8968 - 1 7.8666 7.8365 7.8065 7.7766 7.7467 7.7170 7.6873 7.6577 7.6283	21273. 21254. 21235. 21216. 21197. 21178. 21159. 21140. 21122. 21103.	2.3224 +23 2.3136 2.3048 2.2960 2.2872 2.2784 2.2697 2.2610 2.2523 2.2437	1318.0 1317.4 1316.8 1316.3 1315.7 1315.1 1314.5 1313.9 1313.3 1312.7	1.9503 + 9 1.9419 1.9337 1.9254 1.9172 1.9090 1.9008 1.8927 1.8846 1.8765	6.7583 - 7 6.76%1 6.8101 6.8362 6.8625 6.8888 6.9153 6.9%19 6.9687	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
35000 35200 35400 35800 35800 36000 36200 36400 36600 36800	35059 35260 35460 35661 35862 36062 36263 36464 36664 36865	32.066 32.066 32.065 32.064 32.064 32.063 32.062 32.062 32.061 32.061	7.5989 - 1 7.5403 7.4821 7.4243 7.3668 7.3096 7.2455 7.1760 7.1072 7.0391	21084. 21046. 21008. 20970. 20933. 20895. 20878. 20879. 20879.	2.2350 +23 2.2179 2.2008 2.1838 2.1669 2.1502 2.1313 2.1110 2.0908 2.0708	1312.1 1310.9 1309.7 1308.5 1307.3 1306.1 1305.6 1305.6 1305.6	1.8684 + 9 1.8524 1.8364 1.8206 1.8049 1.7893 1.7729 1.77560 1.7392 1.7225	7.0225 - 7 7.0769 7.1318 7.1873 7.2432 7.2997 7.3642 7.4353 7.5072 7.5797	28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96% 28.96%
37000 37200 37400 37600 37800 38000 38200 38400 38600 38800	37066 37266 37467 37668 37869 38069 38270 38471 38672 38872	32.060 32.059 32.059 32.058 32.058 32.057 32.056 32.056 32.055 32.055	6.9716 - 1 6.9048 6.8386 6.7731 6.7081 6.6438 6.5801 6.5171 6.4546 6.3927	20880. 20880. 20881. 20881. 20882. 20882. 20883. 20883.	2.0509 +23 2.0313 2.0119 1.9926 1.9736 1.9547 1.9360 1.9175 1.8991	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	1.7060 + 9 1.6897 1.6736 1.6575 1.6417 1.6260 1.6104 1.5950 1.5798	7.6529 - 7 7.7268 7.8014 7.8768 7.9529 8.0297 8.1073 8.1056 8.2646 8.3445	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
39000 39200 39400 39600 49600 40200 40400 40600 40800	39073 39274 39475 39675 39876 40077 40278 40478 40679 40880	32.054 32.053 32.053 32.052 32.051 32.051 32.050 32.050 32.050 32.049 32.048	6.3315 - 1 6.2708 6.2107 6.1511 6.0922 6.0338 5.9759 5.9186 5.8619 5.8057	20884. 20885. 20885. 20885. 20886. 20886. 20887. 20887.	1.8630 +23 1.8452 1.8275 1.8100 1.7927 1.7756 1.7586 1.7417 1.7251	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	1.5497 + 9 1.5349 1.5202 1.5056 1.4912 1.4770 1.4628 1.4488 1.4350 1.4212	8.4251 - 7 8.5064 8.5886 8.6716 8.7553 8.8399 8.9253 9.0115 9.0985 9.1864	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
\$1000 \$1200 \$1800 \$1600 \$1800 \$2000 \$2200 \$2400 \$2600 \$2800	41081 41282 41482 41683 41884 42085 42286 42486 42687 42888	32.048 32.047 32.046 32.046 32.045 32.045 32.044 32.043 32.043	5.7501 - 1 5.6949 5.6404 5.5863 5.5327 5.4797 5.4272 5.3752 5.3236 5.2726	20888- 20889- 20889- 20889- 20890- 20890- 20891- 20891-	1.6922 +23 1.6760 1.6600 1.6441 1.6284 1.6128 1.5974 1.5821 1.5670	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	1.4077 + 9 1.3942 1.3808 1.3676 1.3546 1.3546 1.3288 1.3160 1.3035 1.2910	9.2751 - 7 9.3647 9.4552 9.5465 9.6387 9.7318 9.8258 9.9207 1.0017 - 6	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

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Altit	tude	Accel. due to	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, ft	H, ft	gravity g, ft sec ⁻²	ω, lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec⁻¹	ν, sec ⁻¹	L, ft	M
31000 31100 31200 31300 31400 31500 31600 31700 31800 31900	30954 31054 31153 31253 31353 31452 31552 31652 31752 31851	32.079 32.078 32.078 32.078 32.077 32.077 32.077 32.076 32.076	8.8597 - 1 8.8268 8.7940 8.7613 8.7288 8.6962 8.6638 8.6315 8.5993	21848. 21829. 21810. 21791. 21772. 21754. 21735. 21716. 21697. 21678.	2.6049 +23 2.5952 2.5856 2.5760 2.5565 2.5569 2.5474 2.5380 2.5285 2.5191	1335.9 1335.3 1334.8 1334.2 1333.6 1333.0 1332.4 1331.8 1331.3 1330.7	2.2171 + 9 2.2079 2.1988 2.1897 2.1806 2.1716 2.1626 2.1536 2.1446 2.1357	6.0255 - 7 6.0479 6.0704 6.0930 6.1157 6.1385 6.1614 6.1844 6.2075 6.2307	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
32000 32100 32200 32300 32400 32500 32600 32700 32800 32900	31951 32051 32150 32250 32350 32449 32549 32649 32748 32848	32.076 32.075 32.075 32.075 32.074 32.074 32.074 32.073 32.073	8.5351 - 1 8.5032 8.4713 8.4396 8.4079 8.3763 8.3449 8.3135 8.2822 8.2509	21660. 21641. 21622. 21603. 21584. 21545. 21547. 21528. 21509. 21490.	2.5097 +23 2.5003 2.4910 2.4817 2.4724 2.4631 2.4539 2.4447 2.4355 2.4263	1330.1 1329.5 1328.9 1328.3 1327.8 1327.2 1326.6 1326.0 1325.4 1324.8	2.1268 + 9 2.1179 2.1091 2.1003 2.0915 2.0827 2.0740 2.0653 2.0566 2.0480	6.2540 - 7 6.2775 6.3010 6.3246 6.3484 6.3723 6.3963 6.4204 6.4446 6.4689	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
33000 33100 33200 33300 33400 33500 33600 33700 33800 33900	32948 33048 33147 33247 33347 33446 33546 33546 33745 33845	32.072 32.072 32.072 32.072 32.071 32.071 32.071 32.070 32.070	8.2198 - 1 8.1888 8.1578 8.1270 8.0962 8.0656 8.0350 8.0045 7.9741	21471. 21452. 21434. 21415. 21396. 21377. 21358. 21340. 21321. 21302.	2.4172 +23 2.4081 2.3990 2.3990 2.3809 2.3720 2.3630 2.3540 2.3540 2.3540 2.3362	1324.2 1323.6 1323.1 1322.5 1321.9 1321.3 1320.7 1320.1 1319.5 1318.9	2.0394 + 9 2.0308 2.0223 2.0137 2.0052 1.9968 1.9883 1.97799 1.9715	6.4933 - 7 6.5179 6.5425 6.5673 6.5922 6.6172 6.6423 6.6676 6.6929 6.7184	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
34000 34100 34200 34300 34400 34500 34600 34700 34800 34900	33945 34044 34144 34343 34443 34543 34543 34542 34742 34742	32.069 32.069 32.069 32.068 32.068 32.068 32.068 32.067 32.067	7.9135 - 1 7.8834 7.8533 7.8234 7.7935 7.7637 7.7340 7.7044 7.6749 7.6454	21283. 21264. 21245. 21227. 21208. 21189. 21170. 21151. 21133. 21114.	2.3274 +23 2.3185 2.3097 2.3009 2.2921 2.2834 2.2747 2.2660 2.2573 2.2487	1318.4 1317.8 1317.2 1316.6 1316.0 1315.4 1314.8 1314.2 1313.6 1313.0	1.9549 + 9 1.9466 1.9383 1.9301 1.9218 1.9137 1.9055 1.8974 1.8893 1.8812	6.7440 - 7 6.7697 6.7955 6.8215 6.8476 6.8738 6.9001 6.9266 6.9532 6.9799	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
35000 35200 35400 35600 35800 36000 36200 36400 36600 36600	34941 35141 35340 35539 35739 35938 36137 36337 36536 36735	32.066 32.065 32.065 32.064 32.064 32.063 32.063 32.062 32.061 32.061	7.6161 - 1 7.5576 7.4995 7.4818 7.3884 7.3273 7.2674 7.1980 7.1292 7.0611	21095. 21057. 21020. 20982. 20944. 20907. 20878. 20879. 20879.	2.2401 +23 2.2229 2.2059 2.1890 2.1721 2.1554 2.1378 2.1174 2.0972 2.0772	1312.5 1311.3 1310.1 1308.9 1307.7 1306.5 1305.6 1305.6 1305.6	1.8731 + 9 1.8571 1.8412 1.8254 1.8097 1.7941 1.7783 1.7613 1.7445	7.0067 - 7 7.0607 7.1153 7.11704 7.2260 7.2821 7.3420 7.4127 7.4841 7.5561	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
37000 37200 37400 37600 37800 38000 38200 38400 38800	36934 37134 37333 37532 37732 37931 38130 38329 38529 38728	32.060 32.059 32.059 32.058 32.058 32.057 32.056 32.056 32.055 32.055	6.9937 - 1 6.9269 6.8607 6.7952 6.7303 6.6660 6.6023 6.5393 6.4768 6.4150	20880. 20881. 20881. 20881. 20882. 20882. 20883. 20883.	2.0574 +23 2.0378 2.0184 1.9991 1.9801 1.9612 1.9425 1.9240 1.9057 1.8875	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	1.7114 + 9 1.6951 1.6790 1.6629 1.6471 1.6314 1.6158 1.6004 1.5852 1.5701	7.6288 - 7 7.7022 7.7764 7.8512 7.9268 8.0031 8.0801 8.1578 8.2363 8.3156	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
39000 39200 39400 39600 39800 40000 40200 40400 40600 40800	38927 39126 39326 39325 39724 39923 40123 40322 40521 40720	32.054 32.053 32.053 32.052 32.052 32.051 32.050 32.050 32.050 32.049	6.3537 - 1 6.2930 6.2329 6.1734 6.11%4 6.0561 5.9982 5.9409 5.88%2 5.8280	20884. 20884. 20885. 20885. 20886. 20886. 20887. 20887.	1.8695 +23 1.8517 1.8340 1.8166 1.7992 1.7821 1.7651 1.7483 1.7316 1.7151	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	1.5551 + 9 1.5403 1.5256 1.5111 1.4967 1.4824 1.4683 1.4543 1.4543	8.3956 - 7 8.4764 8.5580 8.6403 8.7235 8.8074 8.8921 8.9777 9.0641 9.1513	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
\$1000 \$1200 \$1400 \$1600 \$1800 \$2000 \$2200 \$2400 \$2600 \$2800	40920 41119 41318 41517 41716 41916 42115 42314 42513 42712	32.048 32.047 32.047 32.045 32.045 32.045 32.044 32.044 32.044 32.043	5.7724 - 1 5.7173 5.6627 5.6086 5.5551 5.5020 5.4495 5.3975 5.3459 5.2949	20888. 20889. 20889. 20889. 20890. 20891. 20891.	1.6988 +23 1.6826 1.6666 1.65507 1.6350 1.6194 1.6039 1.5887 1.5735	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	1.4131 + 9 1.3996 1.3863 1.3731 1.3600 1.3471 1.3342 1.3215 1.3089	9.2393 - 7 9.3282 9.4180 9.5086 9.6001 9.6924 9.7856 9.8798 9.9748 1.0071 - 6	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

TABLE ▼.—Continued

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	lude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
H, ft	Z, ft	gravity g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	height H _P , ft	n, ft ⁻³	∇, ft sec	ν , sec ⁻¹	L, ft	M
43000 43200 83400 83600 43800 84000 84000 84600 84800	43089 43290 43491 43691 43892 44093 44294 44495 44495	32.041 32.041 32.040 32.040 32.039 32.039 32.038 32.037 32.037 32.037	5.2221 - 1 5.1720 5.1224 5.0733 5.0247 4.9765 4.9288 4.8816 4.8348 4.7884	20892- 20893- 20893- 20893- 20894- 20894- 20895- 20895-	1.5371 +23 1.5224 1.5079 1.4934 1.4792 1.4650 1.4510 1.4371 1.4234 1.4097	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	1.2786 + 9 1.2664 1.2543 1.2423 1.2234 1.2186 1.2070 1.1954 1.1840 1.1727	1.0211 - 6 1.0310 1.0409 1.0510 1.0611 1.0714 1.0817 1.0922 1.1027	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
45000 45400 45400 45600 46000 46200 46400 46600 46800	45097 45298 45499 45700 45901 46103 46303 46503 46704 46905	32.035 32.035 32.034 32.033 32.033 32.032 32.032 32.031 32.030 32.030	4.7425 - 1 4.6971 4.6521 4.6075 4.5633 4.5196 4.4762 4.4333 4.3908 4.3487	20896. 20897. 20897. 20898. 20898. 20898. 20898. 20899. 20899.	1.3963 +23 1.3829 1.3697 1.3566 1.3436 1.3307 1.3180 1.3054 1.2929	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	1.1615 + 9 1.1503 1.1393 1.1284 1.1176 1.1069 1.0964 1.0959 1.0755	1.12%1 - 6 1.1350 1.1%59 1.1570 1.1682 1.1795 1.1909 1.202% 1.21%0 1.2257	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
47000 47200 47400 47600 47800 48000 48200 48400 48600 48600	47106 47307 47508 47709 47910 48111 48312 48513 48714	32.029 32.029 32.028 32.027 32.027 32.025 32.025 32.025 32.025 32.024	4.3070 - 1 4.2658 4.2249 4.1844 4.1143 4.1045 4.0652 4.0262 3.9876 3.9494	20900. 20900. 20901. 20901. 20902. 20902. 20903. 20903.	1.2683 +23 1.2562 1.2441 1.2322 1.204 1.2088 1.1972 1.1858 1.1744	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	1.0550 + 9 1.0449 1.0349 1.0250 1.0152 1.0055 9.9587 + 8 9.8635 9.7691 9.6757	1.2375 - 6 1.2495 1.2616 1.2738 1.2861 1.2985 1.3110 1.3237 1.3365 1.3494	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
49000 49200 49400 49400 49800 50000 50400 50600 50800	49115 49316 49517 49718 49719 50120 50321 50522 50723 50924	32.023 32.022 32.022 32.021 32.021 32.020 32.019 32.019 32.018 32.017	3.9116 - 1 3.8741 3.8369 3.8001 3.7637 3.7276 3.6919 3.6555 3.6215 3.5868	20904. 20904. 20905. 20906. 20906. 20906. 20907. 20907.	1.1520 +23 1.1410 1.1301 1.1193 1.1086 1.0980 1.0875 1.0771 1.0668 1.0566	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	9.5831 + 8 9.4014 9.4006 9.3107 9.2216 9.1334 9.0460 8.9595 8.8738 8.7889	1.3624 - 6 1.3756 1.3889 1.4023 1.4158 1.4295 1.4433 1.4572 1.4713	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
51000 51200 51400 51600 51800 52000 52200 52400 52600 52800	51125 51326 51527 51728 51929 52130 52331 52532 52733 52934	32.017 32.016 32.016 32.015 32.014 32.014 32.013 32.013 32.012 32.011	3.5524 - 1 3.5183 3.4846 3.4512 3.4181 3.3853 3.3529 3.3208 3.2889 3.2574	20908. 20908. 20909. 20910. 20910. 20910. 20911. 20911.	1.0465 +23 1.0364 1.0265 1.0167 1.0070 9.9735 +22 9.8781 9.7836 9.6900 9.5973	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	8.7048 + 8 8.6215 8.5390 8.4573 8.3764 8.2963 8.2169 8.1383 8.0605 7.9834	1.4999 - 6 1.5144 1.5290 1.5438 1.5587 1.5737 1.5889 1.6043 1.6198	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
53000 53200 53400 53600 53800 54000 54200 54600 54600 54800	53135 53336 53537 53738 53739 54140 54341 54542 54743 54944	32.011 32.010 32.009 32.009 32.008 32.008 32.007 32.006 32.006 32.005	3.2262 - 1 3.1952 3.1646 3.1343 3.1042 3.0745 3.0450 3.0158 2.9869 2.9583	20912. 20913. 20913. 20914. 20914. 20914. 20915. 20915.	9.5055 +22 9.4146 9.3245 9.2353 9.1469 9.0594 8.9728 8.8869 8.6019 8.7177	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	7.9070 + 8 7.8313 7.7564 7.6087 7.5359 7.4638 7.3924 7.3217 7.2517	1.6512 - 6 1.6672 1.6833 1.6995 1.7159 1.7325 1.7493 1.7662 1.7832 1.8004	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
55000 55200 55400 55600 55800 56200 56200 56400 56600 56800	55145 55347 55548 55749 55950 56151 56352 56553 56754 56955	32.005 32.004 32.003 32.003 32.002 32.001 32.001 32.000 32.000 31.999	2.9299 - 1 2.9018 2.8740 2.88465 2.8192 2.7922 2.7654 2.7389 2.7126 2.6866	20916. 20917. 20917. 20918. 20918. 20918. 20919. 20919.	8.6343 +22 8.5517 8.4699 8.3889 8.3086 8.2291 8.1504 8.0724 7.9952	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	7.1823 + 8 7.1136 7.0455 6.9781 6.9114 6.8453 6.7798 6.7798 6.7149 6.6507	1.8178 - 6 1.8354 1.8531 1.8710 1.8891 1.9073 1.9258 1.9444 1.9631	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
57000 57200 57400 57600 57800 58000 58200 58400 58600 58800	57156 57357 57558 57760 57961 58162 58363 58564 58765 58966	31.998 31.998 31.997 31.997 31.995 31.995 31.995 31.993 31.993	2.6609 - 1 2.6354 2.6101 2.5851 2.55603 2.5358 2.5115 2.4874 2.4635 2.4399	20920. 20921. 20921. 20922. 20922. 20922. 20923. 20923.	7.8430 +22 7.7679 7.6936 7.6200 7.5471 7.4749 7.4034 7.3326 7.2624 7.1930	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	6.5240 + 8 6.4616 6.3998 6.3386 6.2779 6.2179 6.1584 6.0995 6.0411 5.9833	2.0012 - 6 2.0206 2.0401 2.0598 2.0797 2.0998 2.1201 2.1405 2.1612 2.1821	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

									
Altit	uda	Accel.	Specific	Pressure	Number	Particle	Collision	Mean free	Molecular
Allii	ude	due to	weight	scale	density	speed	frequency	path	weight
		gravity	weigin	height					
Z, ft	H, ft	o ft sec-2	ω, lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	⊽, ft sec⁻'	$ u$, sec $^{-1}$	∟, ft	M
		9,11 300		тъ, т				ļ <u>.</u>	
43000	42912	32.042	5.2444 - 1	20892.	1.5437 +23	1305.6	1.2841 + 9	1-0168 - 6	28.964
43200	43111	32.041	5.1943	20892.	1.5290	1305.6	1.2719	1.0265	28.964
43400	43310	32.041	5.1447	20893.	1.5144	1305.6	1.2597	1.0364	28.964
43600 43800	43509 43708	32.040 32.039	5.0956 5.0470	20893. 20893.	1.5000 1.4857	1305.6 1305.6	1.2477 1.2358	1.0464	28.964
44000	43700	32.039	4.9988	20894.	1.4715	1305.6	1.2241	1.0666	28.964
44200	44107	32.038	4.9511	20894.	1.4575	1305.6	1.2124	1.0769	28.964
44400	44306	32.037	4.9038	20895.	1.4436	1305.6	1.2009	1.0872	28.964
44600 44800	44505 44704	32.037 32.036	4.8570 4.8106	20895. 20895.	1.4299 1.4163	1305.6	1.1894 1.1781	1.0977	28.964
44000	44704	32.030	4.0.00	20073.	1.4103	1303.0	111101	10.002	1 230,01
45000	44903	32.036	4.7647 - 1	20896.	1.4028 +23	1305.6	1.1669 + 9	1.1189 - 6	28.964
45200	45102	32.035	4.7192	20896.	1.3894	1305.6	1.1558 1.1447	1.1297	28.964 28.964
45400 45600	45301 45501	32.034 32.034	4.6742 4.6296	20897. 20897.	1.3762 1.3631	1305.6 1305.6	1.1338	1.1515	28.964
45800	45700	32.033	4.5854	20897.	1.3501	1305.6	1.1230	1.1626	28.964
46000	45899	32.033	4.5416	20898.	1.3372	1305.6	1.1123	1.1737	28.964
46200	46098	32.032	4.4983	20898.	1.3245 1.3119	1305.6 1305.6	1.1018 1.0913	1.1850	28.964 28.964
46400 46600	46297 46496	32.031	4.4554 4.4129	20899. 20899.	1.2994	1305.6	1.0809	1.2079	28.964
46800	46695	32.030	4.3707	20899.	1.2870	1305.6	1.0706	1.2196	28.964
			İ	2000		1705 /	1 0405 - 0	1 2217 /	20 041
47000 47200	46894 47093	32.030 32.029	4.3290 - 1 4.2877	20900. 20900.	1.2747 +23	1305.6 1305.6	1.0604 + 9	1.2313 - 6 1.2431	28.964 28.964
47400	47293	32.028	4.2468	20901.	1.2506	1305.6	1.0403	1.2551	28.964
47600	47492	32.028	4.2063	20901.	1.2387	1305.6	1.0304	1.2671	28.964
47800	47691	32.027	4-1661	20901.	1.2269	1305.6	1.0206	1.2793	28.964
48000 48200	47890 48089	32.026	4.1264 4.0870	20902. 20902.	1.2152 1.2036	1305.6	1.0108	1.2916	28.964 28.964
48400	48288	32.025	4.0480	20903.	1.1922	1305.6	9.9168 + 8	1.3166	28.964
0008#	48487	32.025	4.0094	20903.	1.1808	1305.6	9.8223	1.3292	28.964
48800	48686	32.024	3.9711	20903.	1.1696	1305.6	9.7288	1.3420	28.964
49000	48885	32.023	3.9332 - 1	20904.	1.1584 +23	1305.6	9.6361 + B	1.3549 - 6	28.964
49200	49084	32.023	3.8957	20904.	1.1474	1305.6	9.5444	1.3679	28.964
49400	49283	32.022	3.8586	20905.	1.1365	1305.6	9.4535	1.3811	28.964
49600	49482	32.022	3.8217	20905. 20905.	1.1256 1.1149	1305.6	9.3635 9.2743	1.3944	28.964
49800 50000	49681 49880	32.021 32.020	3.7853 3.7492	20906.	1.1043	1305.6	9.1860	1.4213	28.964
50200	50079	32.020	3.7134	20906.	1.0938	1305.6	9.0986	1.4350	28.964
50400	50278	32.019	3.6780	20907.	1.0834	1305.6	9.0120	1.4488	28.964
50600 50800	50478 50677	32.018 32.018	3.6429 3.6081	20907. 20907.	1.0731	1305.6	8.9262 8.8412	1.4627	28.964 28.964
51000	50876	32.017	3.5737 - 1	20908.	1.0527 +23	1305.6	8.7570 + 8	1.4909 - 6	28.964 28.964
51200 51400	51075 51274	32.017 32.016	3.5396 3.5059	20908. 20909.	1.0427 1.0328	1305.6	8.6736 8.5911	1.5197	28.964
51600	51473	32.015	3.4724	20909.	1.0230	1305.6	8.5093	1.5343	28.964
51800	51672	32.015	3.4393	20909.	1.0132	1305.6	8.4283	1.5491	28.964
52000	51871	32.014 32.014	3.4065 3.3740	20910. 20910.	1.0036 9.9402 +22	1305.6	8.3480 8.2686	1.5640	28.964 28.964
52200 52400	52070 52269	32.013	3.3418	20911.	9.8456	1305.6	8.1899	1.5942	28.964
52600	52468	32.012	3.3099	20911.	9.7518	1305.6	8.1119	1.6095	28.964
52800	52667	32.012	3.2784	20911.	9.6590	1305.6	8.0347	1.6250	28.964
53000	52866	32.011	3.2471 - 1	20912.	9.5671 +22	1305.6	7.9582 + 8	1.6406 - 6	28.964
53200	53065	32.011	3.2161	20912.	9.4760	1305.6	7.8825	1.6564	28.964
53400	53264	32.010	3-1855	20913.	9.3858	1305.6	7.8074	1.6723	28.964
53600 53800	53463 53662	32.009 32.009	3.1551 3.1250	20913. 20913.	9.2965 9.2080	1305.6 1305.6	7.7331 7.6595	1.6883	28.964
54000	53861	32.008	3.0952	20914.	9.1204	1305.6	7.5866	1.7209	28.964
54200	54059	32.007	3.0657	20914.	9.0336	1305.6	7.5144	1.7375	28.964
54400 54600	54258 54457	32.007	3.0364 3.0075	20915. 20915.	8.9476 8.8624	1305.6 1305.6	7.4429 7.3721	1.75%2	28.964 28.964
54800	54656	32.006	2.9788	20915.	8.7781	1305.6	7.3019	1.7880	28.964
						1	7 9306 - 0	1 0050	28.045
55000 55200	54855 55054	32.005 32.004	2.9504 - 1 2.9223	20916. 20916.	8.6946 +22 8.6118	1305.6 1305.6	7.2324 + 8 7.1636	1.8052 - 6 1.8226	28.964
55400	55253	32.004	2.8944	20917.	8.5299	1305.6	7.0954	1.8401	28.964
55600	55452	32.003	2.8668	20917.	8.4487	1305.6	7.0279	1.8578	28.964
55800	55651	32.003	2.8395	20917.	8.3683	1305.6	6.9610 6.8948	1.8756 1.8936	28.964
56000 56200	55850 56049	32.002 32.001	2.8124 2.7856	20918. 20918.	8.2887 8.2098	1305.6	6.8292	1.9118	28.964
56400	56248	32.001	2.7590	20919.	8.1317	1305.6	6.7642	1.9302	28.964
56600	56447	32.000	2.7327	20919.	8.0543	1305.6	6.6998	1.9487	28.964
56800	56646	31.999	2.7067	20919.	7.9777	1305.6	6.6361	1.9675	28.964
57000	56845	31.999	2.6809 - 1	20920.	7.9018 +22	1305.6	6.5729 + 8	1.9864 - 6	28.964
57200	57044	31.998	2.6553	20920.	7.8266	1305.6	6.5104	2.0054	28.964
57400 57600	57242 57441	31.998 31.997	2.6300	20921.	7.7521 7.6783	1305.6	6.4485 6.3871	2.0247	28.964
57800 57800	57441 57640	31.996	2.5801	20921.	7.6053	1305.6	6.3263	2.0638	28.964
58000	57839	31.996	2.5555	20922.	7.5329	1305.6	6.2661	2.0836	28.964
58200	58038	31.995	2.5311	20922.	7.4613	1305.6	6.2065	2.1036	28.964
58400 58600	58237 58436	31.995 31.994	2.5070 2.4831	20923. 20923.	7.3903 7.3200	1305.6	6.1475 6.0890	2.1238 2.1442	28.964
58800	58635	31.993	2.4594	20923.	7.2503	1305.6	6.0311	2.1648	28.964
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	<u> </u>	1	1	L	L	<u> </u>			

TABLE V.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Alti	lude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
H, ft	Z, ft	gravity g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	height H _P , ft	n, ft ⁻³	∇, ft sec ⁻¹	ν , sec ⁻¹	L, ft	M
59000 59200 59400 59400 59800 60000 60200 60400 60600 60800	59167 59369 59570 59771 59972 60173 60374 60575 60777	31.992 31.992 31.991 31.990 31.990 31.989 31.989 31.988 31.987	2.4165 - 1 2.3734 2.3704 2.3477 2.3252 2.3029 2.2808 2.2590 2.2373 2.2159	20924. 20925. 20925. 20926. 20926. 20926. 20927. 20927. 20928.	7.1241 +22 7.0560 6.9885 6.9216 6.8554 6.7898 6.7249 6.6605 6.5968 6.5337	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	5.9261 + 8 5.8694 5.8133 5.7576 5.7026 5.6480 5.5940 5.5405 5.4875 5.4350	2-2032 - 6 2-2244 2-2459 2-2676 2-2895 2-3116 2-3340 2-3565 2-3793 2-4023	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
61000 61200 61400 61600 61800 62000 62200 62400 62600 62800	61179 61380 61581 61783 61984 62185 62386 62587 62788 62990	31.986 31.985 31.985 31.984 31.984 31.983 31.982 31.982 31.981	2.1946 - 1 2.1736 2.1528 2.1321 2.1117 2.0915 2.0714 2.0515 2.0319 2.0124	20928. 20928. 20929. 20929. 20930. 20930. 20931. 20931. 20932.	6.4712 +22 6.4093 6.3480 6.2873 6.2271 6.1675 6.1085 6.0501 5.9922 5.9349	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	5.3830 + 8 5.3315 5.2805 5.2299 5.1799 5.1304 5.0813 5.0327 4.9845 4.9368	2.4255 - 6 2.4489 2.4725 2.4964 2.5205 2.5449 2.5695 2.5943 2.6193 2.6146	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
63000 63200 63400 63600 63600 64000 64200 64400 64800	63191 63392 63593 63795 63996 64197 64398 64600 64801 65002	31.980 31.979 31.979 31.978 31.977 31.977 31.976 31.976 31.975	1.9931 - 1 1.9740 1.9751 1.9363 1.9178 1.8994 1.8812 1.8632 1.8453 1.8276	20932. 20933. 20933. 20933. 20934. 20935. 20935. 20935. 20936.	5.8781 +22 5.8219 5.7662 5.7110 5.6564 5.6023 5.5487 5.4976 5.4930 5.3909	1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6 1305.6	4.8896 + 8 4.8428 4.7965 4.7506 4.7052 4.6602 4.66156 4.5714 4.5277 4.4844	2.6702 - 6 2.6960 2.7220 2.7483 2.7749 2.8017 2.8287 2.8560 2.8836 2.9115	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
65000 65200 65400 65600 65800 66200 66400 66600 66800	65203 65404 65606 65807 66008 66210 66411 66612 66813 67015	31.974 31.973 31.973 31.972 31.971 31.971 31.970 31.969 31.969	1.8101 - 1 1.7927 1.7756 1.7585 1.7412 1.7241 1.7071 1.6902 1.6736 1.6571	20936- 20937- 20937- 20937- 20943- 20949- 20956- 20962- 20968- 20975-	5.3394 +22 5.2883 5.2377 5.1876 5.1366 5.0861 5.0361 4.9865 4.9375 4.8890	1305.6 1305.6 1305.6 1305.6 1305.8 1306.0 1306.2 1306.3 1306.5 1306.7	4.4415 + 8 4.3990 4.3569 4.3152 4.2734 4.2319 4.1909 4.1502 4.1100 4.0702	2.9396 - 6 2.9680 2.9967 3.0256 3.0556 3.0860 3.1167 3.1476 3.1789 3.2104	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
67000 67200 67400 67600 67800 68000 68200 68400 68600 68800	67216 67417 67619 67820 68021 68222 68424 68625 68826 69028	31.968 31.967 31.966 31.965 31.965 31.965 31.963 31.963 31.963	1.6408 - 1 1.6246 1.6087 1.5928 1.5772 1.5617 1.5463 1.5311 1.5161	20981. 20987. 20994. 21000. 21006. 21012. 21019. 21025. 21031. 21038.	4.8409 +22 4.7933 4.7463 4.6997 4.6535 4.6079 4.5526 4.5179 4.4736 4.4297	1306.9 1307.1 1307.3 1307.4 1307.6 1308.0 1308.2 1308.4 1308.5	4.0307 + 8 3.9917 3.9530 3.9148 3.8769 3.8394 3.8023 3.7655 3.7291 3.6930	3.2423 - 6 3.2745 3.3069 3.3397 3.3729 3.4063 3.4400 3.4741 3.5085 3.5432	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
69000 69200 69400 69600 70000 70200 70400 70600 70800	69229 69430 69632 69833 70034 70236 70437 70638 70840 71041	31.961 31.961 31.960 31.960 31.959 31.958 31.958 31.957 31.957	1.4864 - 1 1.4718 1.4574 1.4431 1.4289 1.4149 1.4011 1.3873 1.3737 1.3603	21044. 21050. 21056. 21063. 21069. 21075. 21082. 21088. 21094.	4.3863 +22 4.3434 4.3008 4.2587 4.2170 4.1757 4.1349 4.0944 4.0544 4.0548	1308.7 1308.9 1309.1 1309.3 1309.5 1309.6 1309.8 1310.0 1310.2	3.6574 + 8 3.6220 3.5871 3.5524 3.5182 3.4842 3.4506 3.4173 3.3844 3.3518	3.5783 - 6 3.6137 3.6495 3.6856 3.7220 3.7588 3.7759 3.8334 3.8713 3.9095	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
71000 71200 71400 71600 71800 72000 72000 72400 72600 72800	71243 71444 71645 71847 72048 72249 72451 72652 72854 73055	31.955 31.955 31.954 31.953 31.953 31.952 31.952 31.951 31.950	1.3470 - 1 1.3338 1.3207 1.3078 1.2950 1.2823 1.2698 1.2574 1.2451 1.2330	21107. 21113. 21119. 21126. 21132. 21138. 21145. 21151. 21157. 21164.	3.9755 +22 3.9367 3.8982 3.8602 3.8225 3.7852 3.7482 3.7117 3.6755 3.6397	1310.6 1310.7 1310.9 1311.1 1311.3 1311.5 1311.6 1311.8 1312.0 1312.2	3.3195 + 8 3.2875 3.2558 3.2245 3.1935 3.1627 3.1323 3.1022 3.0724 3.0429	3.9481 - 6 3.9870 4.0263 4.0661 4.1061 4.1875 4.2287 4.2703 4.3124	28-964 28-964 28-964 28-964 28-964 28-964 28-964 28-964 28-964
73000 73200 73400 73600 73600 74000 74000 74400 74600 74800	73256 73458 73659 73861 74062 74264 74465 74868 75069	31.949 31.949 31.948 31.947 31.947 31.946 31.945 31.944 31.944	1.2209 - 1 1.2090 1.1972 1.1855 1.1739 1.1625 1.1512 1.1399 1.1288 1.1178	21170. 21176. 21183. 21189. 21195. 21201. 21208. 21214. 21220. 21227.	3.6042 +22 3.5691 3.5343 3.4999 3.4658 3.4321 3.3987 3.3656 3.3329 3.3005	1312.4 1312.6 1312.7 1312.9 1313.1 1313.3 1313.5 1313.5 1313.7 1313.8 1314.0	3.0136 + 8 2.9847 2.9560 2.9276 2.8995 2.8717 2.8842 2.8169 2.7699	4.3548 - 6 4.3977 4.4409 4.4846 4.5287 4.5732 4.6181 4.6635 4.7093	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

		T							
Altit	ude	Accel.	Specific	Pressure	Number	Particle	Collision	Mean free	Molecular
		due to	l weight	scale	density	speed	frequency	path	weight
7 5.	11 64	gravity	(1 lb f+-2 coc-2	height	n, ft ⁻³	∇, ft sec ⁻ '		L, ft	M
Z, ft	H, ft	g, ft sec-2	ω, lb ft ⁻² sec ⁻²	H _P , ft	-11, 11	V, 11 3EC	ν, sec	_ -, 11	''
E0000	E0031			20924.	7.1814 +22	1305.6	5.9737 + 8	2.1856 - 6	28.964
59000 59200	58834 59032	31.993 31.992	2.4360 - 1 2.4128	20924.	7.1014 +22	1305.6	5.9169	2.2066	28.964
59400	59231	31.992	2.3898	20925.	7.0454	1305.6	5.8606	2.2278	28.964
59600	59430	31.991	2.3670	20925.	6.9784	1305.6	5.8048	2.2492	28.964
59800 60000	59629 59828	31.990 31.990	2.3444 2.3221	20925. 20926.	6.9120 6.8462	1305.6 1305.6	5.7496 5.6949	2.2708 2.2926	28.964
60200	60027	31.989	2.3000	20926.	6.7811	1305.6	5.6408	2.3146	28.964
60400	60226	31.988	2.2780	20927.	6.7166	1305.6	5.5871	2.3368	28.964
60600	60424	31.988	2.2563	20927.	6.6527	1305.6	5.5340	2.3593 2.3819	28.964
60800	60623	31.987	2.2348	20927.	6.5895	1305.6	5.4813	2.3014	20.704
61000	60822	31.987	2.2135 - 1	20928.	6.5268 +22	1305.6	5.4292 + 8	2.4048 - 6	28.964
61200 61400	61021 61220	31.986 31.985	2.1924 2.1715	20928. 20929.	6.4647 6.4032	1305.6 1305.6	5.3776 5.3264	2.4279 2.4512	28.964 28.964
61600	61419	31.985	2.1508	20929.	6.3423	1305.6	5.2757	2.4747	28.964
61800	61617	31.984	2.1303	20929.	6.2820	1305.6	5.2256	2.4985	28.964
62000	61816	31.984	2.1100	20930.	6.2223	1305.6	5.1759	2.5225	28.964
62200 62400	62015 62214	31.983 31.982	2.0899 2.0700	20930. 20931.	6.1631 6.1045	1305.6 1305.6	5.1267 5.0779	2.5467 2.5712	28.964 28.964
62600	62413	31.982	2.0503	20931.	6.0464	1305.6	5.0296	2.5959	28.964
62800	62611	31.981	2.0308	20931.	5.9889	1305.6	4.9818	2.6208	28.964
000E6	62810	31.981	2.0114 - 1	20932.	5.9320 +22	1305.6	4.9344 + B	2.6459 - 6	28.964
63200	63009	31.980	1.9922	20932.	5.8756	1305.6	4.8875	2.6713	28.964
63400	63208	31.979	1.9733	20933.	5-8197	1305.6	4.8410	2.6970	28.964
63600 63800	63407	31.979 31.978	1.9545 1.9358	20933. 20933.	5.7643 5.7095	1305.6 1305.6	4.7950 4.7494	2.7229 2.7490	28.964 28.964
64000	63605 63804	31.977	1.9174	20934.	5.6552	1305.6	4.7042	2.7754	28.964
64200	64003	31.977	1.8991	20934.	5.6015	1305.6	4.6595	2.8021	28.964
64400	64202	31.976	1.8810	20935.	5.5482	1305.6	4.6152	2.8290 2.8561	28.964
64600 64800	64400 64599	31.976 31.975	1.8631 1.8454	20935. 20935.	5.4955 5.4432	1305.6	4.5713 4.5278	2.8835	28.964
		i	1 8270 - 1	20936.	5.3915 +22	1305.6	h.4848 + 8	2.9112 - 6	28.964
65000 65200	64798 64997	31.974 31.974	1.8278 - 1 1.8104	20936.	5.3413 +22	1305.6	4.4422	2.9391	28.964
65400	65196	31.973	1.7931	20937.	5.2894	1305.6	4.3999	2.9674	28.964
65600	65394	31.973	1.7760	20937.	5.2391	1305.6	4.3581	2.9958	28.964
65800	65593	31.972	1.7591	20937. 20943.	5.1893 5.1387	1305.6 1305.8	4.3167 4.2751	3.0246 3.0544	28.964 28.964
66000 66200	65792 65991	31.971 31.971	1.7419 1.7249	20949.	5.0885	1306.0	4.2339	3.0845	28.964
66400	66189	31.970	1.7080	20955.	5.0387	1306.1	4.1931	3.1150	28.964
66600 66800	66388 66587	31.970 31.969	1.6913	20962. 20968.	4.9895 4.9407	1306.3	4.1527 4.1127	3.1457 3.1768	28.964 28.964
		l							
67000 67200	66785 6 698 4	31.968	1.6583 - 1 1.6421	20974. 20980.	4.8925 +22 4.8447	1306.7	4.0731 + 8 4.0339	3.2081 - 6 3.2398	28.964 28.964
67400	67183	31.967	1.6260	20987.	4.7974	1307.1	3.9950	3.2717	28.964
67600	67382	31.966	1.6101	20993.	4.7506	1307.2	3.9566	3.3039	28.964
67800	67580	31.966	1.5944	20999. 21005.	4.7042 4.6584	1307.4 1307.6	3.9185 3.8809	3.3365 3.3694	28.964
68000 68200	67779 67978	31.965 31.965	1.5788 1.5634	21012.	4.6129	1307.8	3.8436	3.4025	28.964
68400	68176	31.964	1.5481	21018.	4.5680	1308.0	3.8066	3.4360	28.964
00886 00886	68375 68574	31.963	1.5330 1.5180	21024. 21030.	4.5234 4.4794	1308.1 1308.3	3.7700 3.7338	3-4698 3-5040	28.964
69000	68772 68071	31.962 31.962	1.5032 - 1 1.4886	21037. 21043.	4.4358 +22 4.3926	1308.5 1308.7	3.6980 + 8 3.6625	3.5384 - 6 3.5732	28.964
69200 69400	68971 69170	31.961	1.4740	21043.	4.3498	1308.9	3.6274	3.6083	28.964
69600	69368	31.961 31.960	1.4597	21055.	4.3075	1309.1	3.5926	3.6438	28.964
69800	69567	31.960	1.4454	21062.	4.2656 4.2241	1309.2 1309.4	3.5581 3.5240	3.6796 3.7157	28.964
70000 70200	69766 69964	31.959 31.959	1.4514	21068. 21074.	4.1830	1309.4	3.4902	3.7522	28.964
70400	70163	31.958	1.40,36	21081.	4.1424	1309.8	3.4568	3.7890	28.964
70600 70800	70362 70560	31.957 31.957	1.3899 1.3764	21087. 21093.	4.1021 4.0623	1310.0 1310.1	3.4237 3.3909	3.8262 3.8637	28.964 28.964
		·							
71000	70759	31.956	1.3630 - 1 1.3498	21099. 21106.	4.0228 +22 3.9838	1310.3 1310.5	3.3584 + 8 3.3263	3.9016 - 6 3.9399	28.964 28.964
71200 71400	70958 71156	31.955 31.955	1.3498	21112.	3.9451	1310.5	3.2944	3.9785	28.964
71600	71355	31.954	1.3236	21118.	3.9069	1310.9	3.2629	4.0175	28.964
71800	71554	31.954 31.954 31.953	1.3108	21124.	3.8690	1311.1	3.2317	4-0568	28-964
72000 72200	71752 71951	31.953	1.2981 1.2854	21131. 21137.	3.8314 3.7943	1311.2	3.2008 3.1703	4.0965 4.1366	28.964
72400	72150	31.952	1.2730	21143.	3.7575	1311.6	3.1400	4.1771	28.964
72600	72348	31.951	1.2606	21149.	3.7211	1311.8	3.1100	4.2180 h. 2502	28.964 28.964
72800	72547	31.951	1.2484	21156.	3.6851	1312.0	3.0803	4-2592	
73000	72745	31.950	1.2363 - 1	21162.	3.6494 +22	1312.1	3.0509 + 8	4.3009 - 6	28.964 28.964
73200 73400	72944 73143	31.949 31.949	1.2243 1.2124	21168. 21174.	3.6141 3.5791	1312.3	3.0218 2.9930	4.3429 4.3853	28.964
73600	73341	31.948	1.2007	21181.	3.5445	1312.7	2.9644	4.4282	28.964
73800	73540	31.948 31.947	1.1890	21187.	3.5102	1312.9	2.9362	4-4714	28.964
74000	73738	31.947	1.1775	21193. 21199.	3.4763 3.4427	1313.1 1313.2	2.9082 2.8805	4.5151 4.5591	28.964
74200 74400	73937 74135	31.946 31.946	1.1661 1.1548	21206.	3.4427 3.4094	1313.4	2.8530	4.6036	28.964
74600	74334	31.945	1.1436	21212.	3.3765	1313.6	2.8259	4.6485	28.964
74800	74533	31.944	1.1326	21218.	3.3439	1313.8	2.7990	4.6938	28.964
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TABLE Σ .—Continued GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Alti	tude	Accel.	Specific	Pressure scale	Number	Particle	Collision	Mean free	Molecular
H, ft	Z, ft		weight ω , lb ft ⁻² sec ⁻²		density n, ft ⁻³	speed \overline{V} , ft sec ⁻¹	frequency ν , sec ⁻¹	path L, ft	weight M
75000 75200 75400 75600 75800 76000 76200 76400 76600 76800	75271 75472 75674 75875 76077 76278 76479 76681 76682 77084	31.943 31.942 31.942 31.941 31.941 31.940 31.939 31.939 31.938	1.1070 - 1 1.0962 1.0855 1.0750 1.0645 1.0541 1.0439 1.0338 1.0237	21233. 21239. 21246. 21252. 21258. 21264. 21271. 21277. 21283. 21290.	3.2684 +22 3.2367 3.2052 3.1741 3.1433 3.1128 3.0826 3.0527 3.0231 2.9938	1314.2 1314.4 1314.8 1314.9 1315.1 1315.3 1315.5 1315.5 1315.7	2.7367 + 8 2.7105 2.6845 2.6588 2.6334 2.6082 2.5832 2.5585 2.5585 2.5585	4.8022 - 6 4.8893 4.8996 4.9449 4.9934 5.0023 5.0917 5.1416 5.1919 5.2428	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
77000 77200 77400 77600 77800 78000 78200 78400 78600 78800	77285 77487 77688 77890 78091 78293 78494 78696 78897 79099	31.937 31.936 31.936 31.935 31.934 31.934 31.933 31.933	1.0039 - 1 9.9417 - 2 9.8452 9.7497 9.6551 9.5615 9.4688 9.3770 9.2861 9.1962	21296. 21302. 21309. 21315. 21321. 21328. 21334. 21340. 21346. 21353.	2.9648 +22 2.9360 2.9076 2.8794 2.8515 2.8240 2.7966 2.7696 2.7428 2.7163	1316.0 1316.2 1316.4 1316.6 1316.8 1316.9 1317.1 1317.3 1317.5 1317.7	2.4858 + 8 2.4621 2.4386 2.4153 2.3923 2.3694 2.3468 2.32244 2.3023 2.2803	5.2941 - 6 5.3459 5.3982 5.4510 5.5043 5.5580 5.6124 5.6672 5.7225 5.7784	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
79000 79200 79400 79600 79800 80000 80200 80400 80600 80600	79300 79502 79703 79905 80107 80308 80510 80711 80913 81114	31.931 31.930 31.929 31.929 31.928 31.928 31.927 31.926 31.926	9.1071 - 2 9.0189 8.9316 8.8452 8.7596 8.6749 8.5910 8.5080 8.4258 8.3444	21359. 21365. 21372. 21378. 21384. 21391. 21397. 21403. 21410. 21416.	2.6900 +22 2.6640 2.6383 2.6128 2.5876 2.5526 2.5379 2.5134 2.4892 2.4652	1317.8 1318.0 1318.2 1318.4 1318.6 1318.8 1318.9 1319.1 1319.3 1319.5	2.2586 + 8 2.2371 2.2158 2.1947 2.1738 2.1531 2.1326 2.1124 2.0923 2.0724	5.8348 - 6 5.8917 5.9492 6.0072 6.0658 6.1249 6.1846 6.2448 6.3056 6.3670	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
81000 81200 81400 81600 82000 82200 82400 82600 82800	81316 81517 81719 81719 82122 82324 82525 82727 82727 82728 83130	31.925 31.924 31.923 31.922 31.922 31.922 31.921 31.920 31.920 31.919	8.2638 - 2 8.1840 8.1050 8.0268 7.9494 7.8727 7.7968 7.7216 7.6472 7.5735	21422. 21429. 21431. 21441. 21447. 21454. 21460. 21473. 21479.	2.4414 +22 2.4179 2.3946 2.3715 2.3487 2.3261 2.3037 2.2815 2.2596 2.2379	1319.7 1319.8 1320.0 1320.2 1320.4 1320.6 1320.8 1320.9 1321.1 1321.3	2.0527 + 8 2.0332 2.0139 1.9948 1.9758 1.9571 1.9385 1.9201 1.9019 1.8839	6.4290 - 6 6.4915 6.5547 6.6184 6.6828 6.7477 6.8133 6.8795 6.9463 7.0137	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
83000 83200 83400 83600 83600 84000 84200 84400 84600 84600	83332 83533 83735 83937 84138 84340 84541 84743 84945 85146	31.918 31.918 31.917 31.917 31.916 31.915 31.915 31.914 31.914	7.5006 - 2 7.4284 7.3568 7.2860 7.2159 7.1465 7.0778 7.0098 6.9424 6.8757	21485. 21492. 21498. 21504. 21511. 21517. 21523. 21530. 21536. 21542.	2.2163 +22 2.1950 2.1740 2.1531 2.1324 2.1119 2.0917 2.0716 2.0517 2.0320	1321.5 1321.7 1321.8 1322.0 1322.2 1322.4 1322.6 1322.8 1322.9 1323.1	1.8660 + 8 1.8484 1.8308 1.8135 1.7763 1.7793 1.7625 1.7458 1.7293 1.7130	7.0818 - 6 7.1505 7.2199 7.2899 7.3606 7.4319 7.5039 7.5766 7.6500 7.7241	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
85000 85200 85400 85600 85600 86000 86400 86400 86600 86600	85348 85550 85751 85953 86154 86356 86558 86759 86961 87163	31.912 31.912 31.911 31.910 31.909 31.909 31.908 31.907 31.907	6.8097 - 2 6.7443 6.6795 6.6154 6.5519 6.4891 6.4269 6.3652 6.3042 6.2438	21549. 21555. 21561. 21567. 21574. 21580. 21586. 21593. 21599. 21605.	2.0126 +22 1.9933 1.9742 1.9553 1.9365 1.9180 1.8997 1.8815 1.8635 1.8635	1323.3 1323.5 1323.7 1323.8 1324.0 1324.2 1324.4 1324.6 1324.7	1.6968 + 8 1.6808 1.6649 1.6492 1.6336 1.6182 1.6029 1.5878 1.5728	7.7988 - 6 7.8743 7.9505 8.0274 8.1050 8.1833 8.2624 8.3422 8.4228 8.5041	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
87000 87200 87400 87600 87600 88000 88200 88400 88600 88800	87364 87566 87768 87970 88171 88373 88575 88776 88978 89180	31.906 31.906 31.905 31.904 31.904 31.903 31.902 31.902 31.901	6.1840 - 2 6.1248 6.0661 6.0081 5.9506 5.8937 5.88373 5.7815 5.7262 5.6715	21612. 21618. 21624. 21631. 21637. 21643. 21650. 21656. 21669.	1.8280 +22 1.8105 1.7932 1.7761 1.7591 1.7424 1.7257 1.7093 1.6929 1.6768	1325.1 1325.3 1325.5 1325.7 1325.8 1326.0 1326.2 1326.4 1326.6	1.5433 + 8 1.5288 1.5144 1.5001 1.4860 1.4720 1.4581 1.4444 1.4308	8.5862 - 6 8.6691 8.7527 8.8371 8.9223 9.0083 9.0951 9.1828 9.2712 9.3605	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
89000 89200 89400 89600 90000 90200 90400 90600 90800	89381 89583 89785 89987 90188 90390 90592 90794 90995 91197	31.900 31.899 31.898 31.898 31.897 31.896 31.896 31.896 31.895 31.895	5.6173 - 2 5.5637 5.5105 5.4579 5.4058 5.3543 5.3032 5.2526 5.2026 5.1530	21675- 21681. 21688. 21694. 21700. 21707- 21713. 21719. 21725. 21732.	1.6608 +22 1.6450 1.6293 1.6138 1.5984 1.5832 1.5681 1.5532 1.5384 1.5238	1326.9 1327.1 1327.3 1327.5 1327.6 1327.8 1328.0 1328.2 1328.4 1328.5	1.4041 + 8 1.3709 1.3778 1.3649 1.3520 1.3394 1.3268 1.3143 1.3020 1.2898	9.4506 - 6 9.5415 9.6333 9.7260 9.8195 9.9139 1.0009 - 5 1.0105 1.0202 1.0300	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

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Altif		Accel. due to gravity	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, ft	H, ft	g, ft sec-2	ω , lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec⁻'	ν, sec ⁻¹	L, ft	М
75000 75200 75400 75800 75800 76000 76400 76400 76600 76800	74731 74930 75128 75327 75525 75724 75923 76121 76320 76518	31.944 31.943 31.943 31.942 31.941 31.940 31.940 31.939 31.938	1.1216 - 1 1.1108 1.1000 1.0894 1.0789 1.0685 1.0581 1.0479 1.0378	21224. 21231. 21237. 21243. 21250. 21256. 21262. 21268. 21275. 21281.	3.3116 +22 3.2797 3.2480 3.2167 3.1857 3.1857 3.1246 3.0945 3.0647 3.0352	1314.0 1314.1 1314.3 1314.5 1314.7 1314.9 1315.0 1315.2 1315.4	2.7723 + 8 2.7459 2.7198 2.6940 2.6684 2.6430 2.6179 2.5930 2.5684 2.5440	4.7396 - 6 4.7858 4.8324 4.8794 4.9270 4.9749 5.0233 5.0722 5.1215 5.1713	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
77000 77200 77400 77600 77800 78000 78200 78400 78600 78800	76717 76915 77114 77312 77511 77709 77908 78106 78305 78503	31.938 31.937 31.937 31.936 31.935 31.935 31.933 31.933 31.933	1.0179 - 1 1.0081 9.9836 - 2 9.8874 9.7922 9.6979 9.6045 9.5121 9.4205 9.3299	21287. 21293. 21300. 21306. 21312. 21318. 21325. 21331. 21337. 21343.	3.0059 +22 2.9770 2.9484 2.9200 2.8919 2.8642 2.8366 2.8094 2.7824	1315.8 1316.0 1316.1 1316.3 1316.5 1316.7 1316.9 1317.0 1317.2	2.5199 + 8 2.4960 2.4723 2.4489 2.4257 2.4027 2.3799 2.3574 2.3351 2.3130	5.2215 - 6 5.2723 5.3235 5.3752 5.4274 5.4800 5.5332 5.5869 5.6410 5.6957	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
79000 79200 79400 79600 79600 80000 80200 80400 80600 80800	78702 78900 79099 79297 79496 79694 79893 80091 80290 80488	31.932 31.931 31.930 31.930 31.929 31.929 31.928 31.927 31.927	9.2402 - 2 9.1514 9.0634 8.9764 8.9764 8.8048 8.7203 8.6366 8.5537 8.4717	21350. 21356. 21362. 21368. 21375. 21381. 21387. 21394. 21400.	2.7293 +22 2.7031 2.6771 2.6515 2.6261 2.6009 2.5760 2.5513 2.5269 2.5027	1317.6 1317.8 1317.9 1318.1 1318.3 1318.5 1318.7 1318.8 1319.0	2.2911 + 8 2.2694 2.2480 2.2267 2.2057 2.1848 2.1642 2.1438 2.1235 2.1035	5.7509 - 6 5.8066 5.8628 5.9196 5.9769 6.0347 6.0931 6.1520 6.2115	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
81000 81200 81400 81600 81800 82000 82200 82400 82600 82800	80687 80885 81083 81282 81480 81679 81877 82076 82274 82473	31.926 31.925 31.924 31.924 31.923 31.922 31.922 31.921 31.921	8.3905 - 2 8.3100 8.2304 8.1516 6.0735 7.9962 7.9197 7.8439 7.7688 7.6945	21412. 21419. 21425. 21431. 21437. 21444. 21450. 21456. 21462. 21469.	2.4787 +22 2.4550 2.4315 2.4083 2.3853 2.3625 2.3399 2.3176 2.2954 2.2735	1319.4 1319.6 1319.7 1319.7 1320.1 1320.3 1320.5 1320.6 1320.8 1321.0	2.0836 + 8 2.0640 2.0445 2.0253 2.0253 2.0062 1.9873 1.9686 1.9500 1.9317 1.9135	6.3321 - 6 6.3933 6.4550 6.5173 6.5802 6.6437 6.7078 6.7725 6.8377 6.9036	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
83000 83200 83400 83600 83600 84000 84200 84400 84600 84800	82671 82869 83068 83266 83465 83663 83861 84060 84258 84457	31.919 31.918 31.918 31.917 31.916 31.916 31.915 31.915	7.6210 - 2 7.5481 7.4760 7.4046 7.3339 7.2639 7.1946 7.1259 7.0580 6.9907	21475. 21481. 21487. 21494. 21500. 21506. 21513. 21519. 21525. 21531.	2.2518 +22 2.2304 2.2091 2.1880 2.1672 2.1465 2.1261 2.1058 2.0858 2.0860	1321.2 1321.4 1321.5 1321.7 1321.9 1322.1 1322.3 1322.4 1322.6 1322.8	1.8955 + 8 1.8777 1.8600 1.8425 1.8252 1.8081 1.77911 1.7743 1.7576	6.9701 - 6 7.0372 7.1050 7.1734 7.2424 7.3121 7.3824 7.4534 7.5250 7.5973	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
85000 85200 85400 85600 85800 86000 86200 86400 86600	84655 84853 85052 85250 85448 85647 85845 86043 86242 86440	31.913 31.912 31.912 31.911 31.910 31.910 31.909 31.908	6.9240 - 2 6.8580 6.7927 6.7280 6.6639 6.6005 6.5377 6.4755 6.4139 6.3529	21538. 21544. 21550. 21556. 21563. 21569. 21575. 21581. 21588. 21594.	2.0463 +22 2.0268 2.0076 1.9885 1.9696 1.9509 1.9323 1.9140 1.8958 1.8778	1323.0 1323.2 1323.3 1323.5 1323.7 1323.9 1324.1 1324.2 1324.4	1.7248 + 8 1.7087 1.6926 1.6768 1.6611 1.6455 1.6301 1.6148 1.5997	7.6703 - 6 7.7439 7.8183 7.8933 7.9690 8.0454 8.1226 8.2004 8.2790 8.3583	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
87000 87200 87400 87600 87800 88000 88200 88400 88400 88800	86639 86837 87035 87234 87432 87630 87829 88027 88225 88423	31.907 31.907 31.906 31.905 31.905 31.904 31.904 31.903 31.902	6.2925 - 2 6.2327 6.1735 6.1149 6.0568 5.9994 5.9424 5.8861 5.8302 5.7750	21600. 21607. 21613. 21619. 21625. 21632. 21638. 21644. 21650. 21657.	1.8600 +22 1.8424 1.8249 1.8076 1.7905 1.7735 1.7567 1.7567 1.7401 1.7236 1.7073	1324.8 1325.0 1325.1 1325.3 1325.5 1325.7 1325.9 1326.0 1326.2	1.5699 + 8 1.5553 1.5407 1.5263 1.5121 1.4980 1.4840 1.4701 1.4701 1.4564 1.4428	8.4384 - 6 8.5192 8.6007 8.6830 8.7661 8.8499 9.345 9.0199 9.1061 9.1931	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
89000 89200 89400 89600 89800 90000 90200 90400 90600 90800	88622 88820 89018 89217 89415 89613 89812 90010 90208 90406	31.901 31.901 31.900 31.899 31.899 31.897 31.897 31.897 31.896	5.7202 - 2 5.6660 5.6124 5.5592 5.5066 5.4545 5.4029 5.3518 5.3012 5.2510	21663. 21669. 21675. 21682. 21688. 21694. 21701. 21707. 21713. 21719.	1.6912 +22 1.6752 1.6594 1.6437 1.6281 1.6128 1.5975 1.5825 1.5675 1.5527	1326.6 1326.8 1326.9 1327.1 1327.3 1327.5 1327.7 1327.8 1328.0 1328.2	1.4294 + 8 1.4160 1.4028 1.3898 1.3768 1.3640 1.3513 1.3387 1.3263 1.3139	9.2809 - 6 9.3695 9.4589 9.5491 9.6402 9.7321 9.8249 9.9185 1.0013 - 5 1.0108	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

		T .		D				· · · · · · · · · · · · · · · · · · ·	T
Altit	lude	Accel.	Specific	Pressure scale	Number	Particle	Collision	Mean free	
<u></u>		due to gravity	weight		density	speed	frequency	path	weight
H, ft	Z, ft	gruviry	ω , lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec ⁻¹	u, sec ⁻¹	L, ft	M
		g, 11 sec		' 'P', ' '					
91000	91399	31.894	5.1039 - 2	21730.	1.5093 +22	1328.7	1.2777 + 8	1.0399 - 5	28.964
91200	91601	31.893 31.893	5.0553 5.0071	21744. 21751.	1.4950	1328.9 1329.1	1.2657 1.2539	1.0499	28.964 28.964
91400 91600	91802 92004	31.892	4.9595	21757.	1.4667	1329.3	1.2421	1.0701	28.964
91800	92206 92408	31.891 31.891	4.9123 4.8655	21763. 21770.	1.4527 1.4390	1329.4 1329.6	1.2305 1.2190	1.0804	28.964 28.964
92000 92200	92609	31.890	4.8192	21776.	1.4253	1329.8	1.2076	1.1012	28.964
92400	92811 93013	31.890 31.889	4.7734 4.7280	21782. 21789.	1.4118 1.3984	1330.0 1330.2	1.1963 1.1851	1.1118	28.964 28.964
92600 92800	93215	31.888	4.6831	21795.	1.3851	1330.3	1.1740	1.1332	28.964
93000	93417	31.888	4.6386 - 2	21801.	1.3720 +22	1330.5	1.1630 + 8	1.1440 - 5	28.964
93200	93618	31.887	4.5945	21808.	1.3590	1330.7	1.1522	1.1550	28.964
93400 93600	93820 94022	31.886	4.5509 4.5077	21814. 21820.	1.3461 1.3333	1330.9	1.1414	1.1660	28.964 28.964
93800	94224	31.885	4.4649	21827.	1.3207	1331.2	1.1202	1.1884	28.964
94000 94200	94426 94627	31.885 31.884	4.4225 4.3806	21833. 21839.	1.3082 1.2958	1331.4	1.1097	1.1998	28.964 28.964
94400	94829	31.883	4.3390	21846.	1.2835	1331.8	1.0891	1.2228	28.964
94600 94800	95031 95233	31.883 31.882	4.2979 4.2571	21852. 21858.	1.2714 1.2594	1332.0 1332.1	1.0689	1.2463	28.964
95000	95435	31.882	4.2168 - 2	21865.	1.2475 +22	1332.3	1.0589 + 8	1.2582 - 5	28.964
95200	95637	31.881	4.1768	21871.	1.2357	1332.5	1.0490	1.2702	28.964
95400 95600	95838 96040	31.880 31.880	4.1373 4.0981	21877. 21884.	1.2240	1332.7 1332.9	1.0393	1.2823	28.964 28.964
95800	96242	31.879	4.0593	21890.	1.2010	1333.0	1.0200	1.3069	28.964
96000 96200	96444 96646	31.878 31.878	4.0209 3.9828	21896. 21903.	1.1896 1.1784	1333.2 1333.4	1.0105 1.0011	1.3194	28.964 28.964
96400	96848	31.877	3.9452	21909.	1.1673	1333.6	9.9177 + 7	1.3447	28.964
96600 96800	97050 97251	31.877	3.9079 3.8709	21915. 21922.	1.1562	1333.8	9.8254 9.7340	1.3575	28.964 28.964
97000	97453	31.875	3.8343 - 2	21928.	1.1345 +22	1334.1	9.6435 + 7	1.3834 - 5	28.964
97200	97655	31.875	3.7981	21934.	1.1238	1334.3	9.5539	1.3966	28.964
97400 97600	97857 98059	31.874 31.874	3.7622 3.7267	21941. 21947.	1.1132	1334.5 1334.7	9.4651 9.3771	1.4099	28.964 28.964
97800	98261	31.873	3.6915	21953.	1.0924	1334.8	9.2900	1.4369	28.964
98000 98200	98463 98665	31.872 31.872	3.6567 3.6222	21960. 21966.	1.0821	1335.0 1335.2	9.2038 9.1183	1.4505	28.964 28.964
98400	98867	31.871	3.5880	21972.	1.0618	1335.4	9.0337	1.4782	28.964
98600 98800	99068 99270	31.871	3.5542 3.5206	21979. 21985.	1.0518	1335.6 1335.7	8.9499 8.8668	1.4923	28.964
99000	99472	31.869	3.4875 - 2	21991.	1.0321 +22	1335.9	8.7846 + 7	1.5208 - 5	28.964
99200	99674	31.869	3.4546	21998.	1.0224	1336.1	8.7032	1.5352	28.764
99400 99600	99876 100078	31.868 31.867	3.4221 3.3898	2200%. 22010.	1.0128	1336.3 1336.5	8.6225 8.5426	1.5498	28.964 28.964
99800	100280	31.867	3.3579	22017.	9.9383 +21	1336.6	8.4635	1.5793	28.964
100000	100482 100684	31.866	3.3263 3.2950	22023. 22029.	9.8449	1336.8 1337.0	8.3851 8.3074	1.5943	28.964
100400	100886	31.865	3.2640	22036.	9.6609	1337.2	8.2306	1.6247	28.964
100600	101088 101290	31.864 31.864	3.2333 3.2029	22042. 22048.	9.5702 9.4804	1337.4 1337.5	8.1544 8.0789	1.6400	28.964 28.964
101000	101492	31.863	3.1728 - 2	22055.	9.3915 +21	1337.7	8.0042 + 7	1.6713 - 5	28.964
101200	101694	31.863	3.1430	22061.	9.3034	1337.9	7.9302	1.6871	28.964
101400 101600	101895 102097	31.862 31.861	3.1134 3.0842	22067. 22074.	9.2162 9.1298	1338.1 1338.3	7.8569 7.7843	1.7031 1.7192	28.964 28.964
101800	102299	31.861	3.0552	22080.	9.0442	1338.4	7.7124	1.7354	28.964
102000 102200	102501 102703	31.860 31.859	3.0265 2.9981	22086. 22093.	8.9595 8.8755	1338.6 1338.8	7.6411 7.5706	1.7519 1.7684	28.964 28.964
102400	102905	31.859	2.9700	22099.	8.7924	1339.0	7.5007	1.7851	28.964
102600 102800	103107 103309	31.858 31.858	2.9421 2.9145	22105. 22112.	8.7101 8.6286	1339.2	7.4315 7.3629	1.8020 1.8190	28.964
					<u> </u>				28.964
103000 103200	103511 103713	31.857 31.856	2.8872 - 2 2.8601	22118. 22124.	8.5478 +21 8.4679	1339.5 1339.7	7.2950 + 7 7.2277	1.8362 - 5 1.8535	28.964
103400 103600	103915 104117	31.856 31.855	2.8333 2.8068	22131. 22137.	8.3887 8.3103	1339.9 1340.0	7.1611 7.0951	1.8710	28.964 28.964
103800	104319	31.855	2.7805	22143.	8.2326	1340.2	7.0297	1.9065	28,964
104000 104200	104521 104723	31.854 31.853	2.7545 2.7287	22150. 22156.	8.1557 8.0795	1340.4 1340.6	6.9649	1.9245 1.9427	28.964
104400	104925	31.853	2.7032	22162.	8.0040	1340.8	6.8372	1.9610	28.964
104600 104800	105127 105329	31.852 31.851	2.6779 2.6528	22169. 22175.	7.9293 7.8553	1340.9 1341.1	6.7743 6.7120	1.9795 1.9981	28.964
								2.0170 - 5	28.964
105000 105500	105531 106036	31.851 31.849	2.6279 - 2 2.5639	22182. 22225.	7.7817 +21 7.5925	1341.3 1342.6	6.6501 + 7 6.4945	2.0673	28.964
106000	106542	31.848 31.846	2.5016	22267. 22310.	7.4083 7.2288	1343.8 1345.1	6.3428	2.1187 2.1713	28.964 28.964
106500 107000	107047 107552	31.845	2.3817	22352.	7.0540	1346.3	6.0507	2.2251	28.964
107500 108000	108057 108562	31.843 31.842	2.3241 2.2680	22395. 22437.	6.8838 6.7180	1347.6 1348.8	5.9101 5.7731	2.2801 2.3364	28.964 28.964
108500	109067	31.840	2.2134	22479.	6.5564	1350.1	5.6395	2.3939	28.964
109000 109500	109573 110078	31.839 31.837	2.1602 2.1083	22522. 22564.	6.3990 6.2457	1351.3 1352.5	5.5092 5.3821	2.4528 2.5130	28.964 28.964
.0,300									
				<u></u>	L			<u> </u>	L

Altit	ude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
Z, ft	H, ft	gravity g,ft sec ⁻²	weight ω, lb ft ⁻² sec ⁻²	height H _P , ft		⊽, ft sec ⁻¹		L, ft	M
91000 91200 91400 91600 91800 92000 92200 92400 92600 92800	90605 90803 91001 91199 91398 91596 91794 91992 92191 92389	31.895 31.894 31.894 31.893 31.893 31.891 31.891 31.891 31.890 31.890	5.2014 - 2 5.1523 5.1036 5.0554 5.0077 4.9604 4.9136 4.8673 4.8214 4.7759	21726. 21732. 21738. 21744. 21751. 21757. 21763. 21770. 21776. 21782.	1.5381 +22 1.5236 1.5092 1.4950 1.4809 1.4670 1.4532 1.4335 1.4259 1.4125	1328.4 1328.5 1328.7 1328.9 1329.1 1329.4 1329.6 1329.8 1330.0	1.3017 + 8 1.2896 1.2776 1.2658 1.2540 1.2424 1.2308 1.2194 1.2081 1.1969	1.0205 - 5 1.0302 1.0400 1.0499 1.0599 1.0699 1.0801 1.0904 1.1007	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
93000 93200 93400 93600 93600 94000 94200 94400 94600 94800	92587 92785 92984 93182 93378 93578 93776 93975 94173 94371	31.889 31.888 31.887 31.887 31.887 31.885 31.885 31.885 31.885	4.7309 - 2 4.6864 4.6422 4.5985 4.5552 4.5124 4.4699 4.4279 4.3863 4.3450	21788. 21795. 21801. 21807. 21813. 21820. 21826. 21832. 21838. 21845.	1.3992 +22 1.3861 1.3730 1.3601 1.3474 1.3347 1.3222 1.3098 1.2975	1330.2 1330.3 1330.5 1330.7 1330.7 1331.0 1331.2 1331.4 1331.6 1331.8	1.1858 + 8 1.1748 1.1639 1.1531 1.1425 1.1319 1.1214 1.1110 1.1008 1.0906	1.1217 - 5 1.1324 1.1431 1.1540 1.1649 1.1760 1.1871 1.1983 1.2097	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
95000 95200 95400 95600 95600 96000 96400 96400 96800	94569 94767 94966 95164 95362 95560 95758 95956 96155 96353	31.883 31.882 31.882 31.881 31.880 31.880 31.879 31.879 31.879	4.3042 - 2 4.2638 4.2237 4.1841 4.1448 4.1059 4.0674 4.0292 3.9915 3.9540	21851. 21857. 21864. 21870. 21876. 21882. 21889. 21895. 21901.	1.2733 +22 1.2613 1.2495 1.2378 1.2262 1.2147 1.2033 1.1921 1.1809 1.1699	1331.9 1332.1 1332.3 1332.5 1332.7 1332.8 1333.0 1333.2 1333.4 1333.5	1.0805 + 8 1.0705 1.0606 1.0508 1.0411 1.0315 1.0220 1.0126 1.0032 9.9396 + 7	1.2327 - 5 1.2444 1.2562 1.2680 1.2800 1.2921 1.3043 1.3167 1.3291 1.3416	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
97000 97200 97400 97600 97800 98000 98400 98400 98600 98800	96551 96749 96947 97145 97343 97542 97740 97938 98136 98334	31.877 31.876 31.876 31.875 31.874 31.874 31.873 31.873 31.873	3.9170 - 2 3.8803 3.8840 3.8080 3.7723 3.7370 3.7021 3.6675 3.6332 3.5992	21914. 21920. 21926. 21933. 21939. 21945. 21951. 21958. 21964. 21970.	1.1589 +22 1.1481 1.1374 1.1268 1.1162 1.1058 1.0955 1.0853 1.0751	1333.7 1333.9 1334.1 1334.3 1334.4 1334.6 1335.0 1335.1 1335.3	9.8480 + 7 9.7572 9.6673 9.5783 9.5901 9.4027 9.3162 9.2305 9.1856 9.0615	1.3543 - 5 1.3671 1.3800 1.3930 1.4061 1.4194 1.4328 1.4463 1.4599 1.4736	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
99000 99200 99400 99600 99800 100000 100200 100400 100600 100800	98532 98730 98928 99127 99325 99523 99721 99919 100117 100315	31.871 31.869 31.869 31.868 31.868 31.867 31.866 31.866	3.5656 - 2 3.5323 3.4993 3.4666 3.4343 3.4022 3.3705 3.3391 3.3079 3.2771	21976. 21983. 21989. 21995. 22002. 22008. 22014. 22020. 22027. 22033.	1.0552 +22 1.0453 1.0356 1.0259 1.0164 1.0069 9.9755 +21 9.8827 9.7908 9.6997	1335.5 1335.7 1335.9 1336.0 1336.2 1336.4 1336.6 1336.7 1336.9	8.9782 + 7 8.8957 8.8140 8.7330 8.6528 8.5734 8.4947 8.4168 8.3396 8.2631	1.4875 - 5 1.5015 1.5156 1.5299 1.5443 1.5588 1.5734 1.5882 1.6031	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
10 1000 10 1200 10 1400 10 1600 10 1800 10 2200 10 2200 10 2400 10 2600 10 2800	100513 100711 100909 101107 101305 101504 101702 101900 102098 102296	31.865 31.864 31.863 31.862 31.862 31.861 31.860 31.860 31.859	3.2466 - 2 3.2163 3.1864 3.1567 3.1274 3.0983 3.0694 3.0409 3.0126 2.9846	22039. 22046. 22052. 22058. 22064. 22071. 22077. 22083. 22089. 22096.	9.6095 +21 9.5202 9.4317 9.3441 9.2573 9.1713 9.0862 9.0019 8.9184 8.8357	1337.3 1337.5 1337.6 1337.6 1338.0 1338.2 1338.3 1338.5 1338.7	8.1874 + 7 8.1123 8.0380 7.9644 7.8915 7.8192 7.7477 7.6768 7.6066 7.5370	1.6333 - 5 1.6487 1.6641 1.6797 1.6955 1.7114 1.7274 1.7436 1.7599	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
103000 103200 103400 103600 103800 104000 104200 104600 104600	102494 102692 102890 103088 103286 103484 103682 103880 104078 104276	31.859 31.858 31.857 31.857 31.856 31.856 31.855 31.854 31.854	2.9569 - 2 2.9294 2.9022 2.8753 2.8486 2.8222 2.7960 2.7701 2.7444 2.7190	22102. 22108. 22115. 22121. 22127. 22133. 22140. 22152. 22158.	8.7537 +21 8.6726 8.5922 8.5126 8.4338 8.3557 8.2784 8.2018 8.1259 8.0507	1339.1 1339.2 1339.4 1339.6 1339.8 1339.9 1340.1 1340.3 1340.5	7.4681 + 7 7.3999 7.3323 7.2653 7.1990 7.1333 7.0682 7.0037 6.9398 6.8766	1.7930 - 5 1.8098 1.8267 1.8438 1.8610 1.8784 1.8960 1.9137 1.9316	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
105000 105500 106000 106500 107000 107500 108500 109000 109500	104474 104969 105464 105959 106454 10649 107444 107938 108433 108928	31.852 31.851 31.849 31.846 31.845 31.843 31.842 31.840 31.839	2.6938 - 2 2.6318 2.5685 2.5066 2.4464 2.3877 2.3306 2.2749 2.2206 2.1677	22165. 22180. 22222. 22264. 22306. 22348. 22390. 22432. 22474. 22516.	7.9763 +21 7.7933 7.6060 7.4233 7.2452 7.0718 6.9028 6.7382 6.5778 6.4215	1340.8 1341.3 1342.5 1343.7 1345.0 1346.2 1347.4 1348.7 1349.9	6.8139 + 7 6.6598 6.5056 6.3551 6.2084 6.0653 5.9258 5.7898 5.6571 5.5277	1.9678 - 5 2.0140 2.0636 2.1144 2.1663 2.2195 2.2738 2.3294 2.3862 2.4443	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

		Accel.		Pressure		Γ	0 "" '		
Altit	rude 	due to	Specific weight	scale	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
H, ft	Z, ft	gravity g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	H _P , ft	n, ft ^{-á}	⊽, ft sec¯¹	ν , sec ⁻¹	L, ft	M
110000 110500	110583 111089	31.835 31.834	2.0578 - 2 2.0086	22607. 22649.	6.0964 +21 5.9508	1353.8 1355.0	5.2582 + 7 5.1374	2.5746 - 5 2.6376	28.964 28.964
111000	111594	31.832	1.9606	22692.	5.8090	1356.3	5.0195	2.7019	28.964
111500	112099	31.831	1.9139	22735.	5.6708	1357.5	4.9046	2.7678	28.964
112000	112605	31.829	1.8683	22777. 22820.	5.5362 5.4050	1358.7 1360.0	4.7925 4.6832	2.8351	28.964 28.964
112500 113000	113110 113616	31.828 31.826	1.8240 1.7807	22862.	5.2771	1361.2	4.5765	2.9743	28.964
113500	114121	31.825	1.7386	22905.	5.1525	1362.4	4.4725	3.0462	28.964
114000 114500	114627 115132	31.823 31.822	1.6975 1.6575	22947. 22990.	5.0310 4.9126	1363.7 1364.9	4.3710 4.2720	3.1198 3.1950	28.964 28.964
115000 115500	115638 116143	31.820 31.819	1.6185 - 2 1.5805	23032. 23075.	4.7972 +21 4.6847	1366.1 1367.3	4.1754 + 7 4.0812	3.2718 ~ 5 3.3504	28.964
116000	116649	31.817	1.5434	23117.	4.5751	1368.6	3.9892	3.4307	28.964
116500	117155	31.816	1.5073	23160.	4.4682	1369.8	3.8995	3.5128	28.964
117000	117660	31.814	1.4720	23202.	4.3640	1371.0	3.8120	3.5966	28.964
117500	118166	31.812	1.4377	23245.	4.2624	1372.3	3.7265 3.6432	3.6824 3.7700	28.964
118000 118500	118672 119177	31.811 31.809	1.4042 1.3716	23288. 23330.	4.1633 4.0667	1373.5 1374.7	3.5618	3.8596	28.964
119000	119683	31.808	1.3397	23373.	3.9725	1375.9	3.4824	3.9511	28.964
119500	120189	31.806	1.3087	23415.	3.8807	1377.1	3.4049	4.0446	28.964
120000 120500	120695 121200	31.805 31.803	1.2784 - 2 1.2489	23458. 23500.	3.7911 +21 3.7038	1378.4 1379.6	3.3293 + 7 3.2554	4.1401 - 5 4.2378	28.964 28.964
121000	121706	31.802	1.2201	23543.	3.6186	1380.8	3.1834	4.3375	28.964
121500	122212	31.800	1.1921	23586.	3.5355	1382.0	3.1130	4.4394	28.964
122000 122500	122718 123224	31.799 31.797	1.1647 1.1380	23628. 23671.	3.4545 3.3754	1383.2 1384.4	3.0443 2.9773	4.5436 4.6500	28.964
123000	123730	31.796	1.1119	23714.	3.2983	1385.6	2.9118	4.7587	28.964
123500	124236	31.794	1.0865	23756.	3.2231	1386.9	2.8479	4.8697	28.964
124000 124500	124742 125248	31.793 31.791	1.0617	23799. 23841.	3.149B 3.0782	1388.1 1389.3	2.7855 2.7246	4.9831 5.0990	28.964
125000	125754	31.789	1.0140 - 2	23884.	3.0084 +21	1390.5	2.6651 + 7	5.2173 - 5	28.964
125500	126260	31.788	9.9098 - 3	23927.	2.9403	1391.7	2.6070 2.5503	5.3382 5.4617	28.964 28.964
126000 126500	126766 127272	31.786 31.785	9.6853 9.4663	23969. 24012.	2.8738 2.8089	1394.1	2.4949	5.5878	28.964
127000	127778	31.783	9.2526	24055.	2.7457	1395.3	2.4408	5.7165	28.964
127500	128284	31.782	9.0440	24097.	2.6839	1396.5	2.3880	5.8481	28.964
128000	128791	31.780	8.8406	24140.	2.6236	1397.7	2.3364	5.9824 6.1195	28.964 28.964
128500 129000	129297 129803	31.779 31.777	8.6420 8.4482	24182. 24225.	2.5648 2.5075	1398.9 1400.1	2.2860 2.2367	6.2596	28.964
129500	130309	31.776	8.2591	24268.	2.4514	1401.3	2.1886	6.4026	28.964
130000	130816	31.774 31.773	8.0745 - 3 7.8944	24310. 24353.	2.3968 +21 2.3434	1402.5	2.1417 + 7 2.0958	6.5487 - 5 6.6978	28.964 28.964
130500 131000	131322 131828	31.771	7.7186	24396.	2.2913	1404.9	2.0509	6.8500	28.964
131500	132335	31.770	7.5470	24438.	2.2405	1406.1	2.0071	7.0054	28.964
132000	132841	31.768	7.3794	24481.	2.1909	1407.3	1.9643	7.1641	28.964
132500	133347	31.766	7.2159	24524.	2.1424	1408.5	1.9225	7.3261	28.964
133000 133500	133854 134360	31.765 31.763	7.0563 6.9004	24567. 24609.	2.0951 2.0490	1409.7	1.8817 1.8418	7.4915 7.6603	28.964
134000	134867	31.762	6.7483	24652.	2.0039	1412.0	1.8028	7.8327	28.964
134500	135373	31.760	6.5997	24695.	1.9599	1413.2	1.7646	8.0086	28.964
135000	135880	31.759 31.757	6.4547 - 3	24737. 24780.	1.9169 +21 1.8749	1414.4	1.7274 + 7 1.6910	8.1882 - 5 8.3714	28.964 28.964
135500 136000	136386 136893	31.756	6.3131 6.1748	24823.	1.8339	1416.8	1.6554	8.5585	28.964
136500	137399	31.754	6.0397	24866.	1.7939	1418.0	1.6207	8.7494	28.964
137000	137906	31.753	5.9079	24908.	1.7548	1419.2	1.5867	8.9443	28.964
137500	138413	31.751	5.7791	24951.	1.7167	1420.3	1.5535	9.1431	28.964
138000 138500	138919 139426	31.750 31.748	5.6534 5.5305	24994. 25036.	1.6794	1421.5	1.5210 1.4893	9.3460 9.5531	28.964
139000	139933	31.747	5.4106	25079.	1.6074	1423.9	1.4582	9.7644	28.964
139500	140440	31.745	5.2934	25122.	1.5727	1425.1	1.4279	9.9801	28.964
140000 140500	140946 141453	31.743 31.742	5.1790 - 3 5.0672	25165. 25207.	1.5388 +21 1.5056	1426.2	1.3983 + 7	1.0200 - 4 1.0425	28.964 28.964
141000	141960	31.740	4.9580	25250.	1.4733	1428.6	1.3409	1.0654	28.964
141500	142467	31.739	4.8514	25293.	.1.4416	1429.8	1.3132	1.0887	28.964
142000	142974	31.737	4.7472	25336. 25378.	1.4107	1430.9	1.2861 1.2597	1.1126 1.1369	28.964
142500 143000	143480 143987	31.736 31.734	4.6454 4.5459	25370. 25421.	1.3511	1433.3	1.2338	1.1617	28.964
143500	144494	31.733	4.4488	25464.	1.3223	1434.5	1.2084	1.1870	28.964
144000 144500	145001 145508	31.731 31.730	4.3538 4.2611	25507. 25550.	1.2941	1435.6 1436.8	1.1837 1.1594	1.2129 1.2392	28.964 28.964
145000	146015	31.728	4.1704 - 3	25592.	1.2397 +21	1438.0	1.1358 + 7	1.2661 - 4	28.964
145500	146522	31.727	4.0818	25635.	1.2134	1439.1	1.1126	1.2935	28.964
146000	147029	31.725	3.9953	25678. 25721.	1.1878	1440.3	1.0899	1.3214	28.964
146500	147537 148044	31.724 31.722	3.9107 3.8281	25764.	1.1382	1442.6	1.0461	1.3790	28.964
147500	148551	31.720	3.7473	25806.	1.1142	1443.8	1.0249	1.4087	28.964
148000	149058	31.719	3.6683	25849.	1.0908	1445.0	1.0042	1.4390	28.964
148500	149565	31.717	3.5912	25892.	1.0679	1446.1	9.8388 + 6	1.4698	28.964
149000	150072 150580	31.716 31.714	3.5157 3.4420	25935. 25978.	1.0455	1447.3	9.6404 9.4462	1.5013	28.964 28.964
149500	120300	31111	3.772						
		1	L		L	1		L	<u> </u>

Altif	rude	Accel.	Specific	Pressure scale	Number	Particle	Collision	Mean free	
Z, ft	H, ft		weight ω, lb ft ⁻² sec ⁻²		density n, ft ⁻³	speed ∇, ft sec⁻'	frequency ν , sec ⁻¹	path L, ft	weight M
110000 110500 111500 111500 112000 112500 113500 114000 114500	109423 109918 110412 110907 111402 111896 112391 112886 113380 113875	31.837 31.836 31.834 31.833 31.831 31.830 31.828 31.827 31.825 31.824	2.1162 - 2 2.0660 2.0171 1.0694 1.9230 1.8777 1.8335 1.7905 1.7486	22558. 22600. 22642. 22684. 22726. 22768. 22810. 22852. 22894. 22936.	6.2691 +21 6.1207 5.9761 5.8351 5.6977 5.5638 5.4333 5.3061 5.1821 5.0612	1352.3 1353.6 1354.8 1356.0 1357.2 1358.5 1359.7 1360.9 1362.1 1363.4	5.4015 + 7 5.2784 5.1584 5.0412 4.9270 4.8155 4.7068 4.6007 4.4972 4.3962	2.5036 - 5 2.5643 2.6264 2.6899 2.7547 2.8210 2.8888 2.9581 3.0288 3.1012	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
115000 115500 116000 116500 117500 117500 118500 118500 119500	114369 114864 115358 115853 116347 116842 117336 117830 118325	31.822 31.821 31.819 31.818 31.816 31.815 31.813 31.811 31.810 31.808	1.6679 - 2 1.6290 1.5911 1.5542 1.5182 1.4831 1.4489 1.4155 1.3829	22979. 23021. 23063. 23105. 23147. 23189. 23231. 23273. 23315.	4.9433 +21 4.8284 4.7163 4.6071 4.5006 4.3967 4.2954 4.1966 4.1003	1364.6 1365.8 1367.0 1368.2 1369.4 1370.6 1371.9 1373.1 1374.3 1375.5	4.2977 + 7 4.2015 4.1077 4.0161 3.9267 3.8395 3.7543 3.6712 3.5901 3.5109	3.1751 - 5 3.2507 3.3279 3.4069 3.4875 3.5699 3.6541 3.7401 3.8279 3.9177	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
120000 120500 121000 121500 122500 123500 123500 124000 124500	119313 119808 120302 120796 121290 121785 122279 122773 123267 123761	31.807 31.805 31.804 31.802 31.801 31.799 31.798 31.796 31.795 31.793	1.3202 - 2 1.2900 1.2605 1.2318 1.2037 1.1764 1.1497 1.1237 1.0983 1.0735	23399. 23442. 23484. 23526. 23568. 23610. 23652. 23694. 23736.	3.9147 +21 3.8253 3.7381 3.6530 3.5701 3.4891 3.4102 3.3331 3.2579 3.1846	1376.7 1377.9 1379.1 1380.3 1381.5 1382.7 1383.9 1385.1 1386.3 1387.5	3.4336 + 7 3.3581 3.2845 3.2125 3.1423 3.0737 3.0078 2.9414 2.8775 2.8152	4.0094 - 5 4.1031 4.1988 4.2966 4.3965 4.4984 4.6026 4.7090 4.8177 4.9286	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
125000 125500 126000 126500 127500 127500 128500 128500 129500	124255 124749 125243 1257231 126231 126725 127713 128207 128701	31-792 31-790 31-789 31-787 31-786 31-784 31-783 31-781 31-780 31-778	1.0493 - 2 1.0257 1.0027 9.8026 - 3 9.5833 9.3694 9.1606 8.9558 8.7578 8.5636	23820. 23863. 23905. 23947. 23989. 24031. 24073. 24115. 24157. 24200.	3.1130 +21 3.0432 2.9750 2.9085 2.8436 2.7802 2.7184 2.6581 2.5991	1388.7 1389.9 1391.1 1392.3 1393.5 1394.6 1395.8 1397.0 1398.2 1399.4	2.75%3 + 7 2.69%8 2.6367 2.5800 2.52%5 2.470% 2.%175 2.3658 2.315%	5.0419 - 5 5.1576 5.2758 5.3765 5.5196 5.6454 5.7738 5.9049 6.0388 6.1754	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
130000 130500 131000 131500 132500 132500 133500 134600	129195 129688 130182 130676 131170 131663 132157 132651 133144 133638	31.777 31.775 31.774 31.772 31.771 31.769 31.768 31.766 31.764 31.763	8.37%1 - 3 8.1890 8.008% 7.8320 7.6599 7.%918 7.3276 7.167% 7.167%	24242. 24284. 24326. 24368. 24410. 24452. 244537. 24537. 24527.	2.4855 +21 2.4307 2.3772 2.3249 2.2739 2.2241 2.1755 2.1280 2.0817 2.0364	1400.6 1401.8 1402.9 1404.1 1405.3 1406.5 1407.7 1408.8 1410.0	2.2179 + 7 2.1708 2.1248 2.0799 2.0360 1.9930 1.9511 1.9101 1.8701 1.8309	6.3149 - 5 6.4573 6.6026 6.7510 6.9024 7.0569 7.2147 7.3756 7.5399 7.7076	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
135000 135500 136000 136500 137000 137500 138000 138500 139500	134132 134625 135119 135612 136106 136599 137093 137586 138080 138573	31.761 31.760 31.758 31.757 31.755 31.754 31.752 31.751 31.749	6.7088 - 3 6.5631 6.4207 6.2817 6.1459 6.0133 5.8838 5.7572 5.6336 5.5129	24663. 24705. 24747. 24790. 24832. 24874. 24958. 25000. 25043.	1.9922 +21 1.9490 1.9068 1.8656 1.8254 1.7861 1.7477 1.7102 1.6735	1412.4 1413.5 1414.7 1415.9 1417.0 1418.2 1419.4 1420.5 1421.7 1422.9	1.7926 + 7 1.7552 1.7187 1.6829 1.6480 1.6138 1.5805 1.5478 1.5159	7.8786 - 5 8.0532 8.2313 8.4131 8.5986 8.7878 8.9808 9.1778 9.3787 9.5837	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
14000 14050 14100 141500 141500 142500 143000 143500 144500	139066 139560 140553 140546 141040 141533 142026 142519 143012 143506	31.746 31.745 31.743 31.742 31.740 31.737 31.737 31.736 31.734	5.3949 - 3 5.2796 5.1670 5.0570 4.9495 4.8445 4.7418 4.6415 4.5435 4.4477	25085. 25127. 25169. 25211. 25254. 25296. 25338. 25380. 25422. 25464.	1.6028 +21 1.5686 1.5352 1.5026 1.4707 1.4396 1.4092 1.3794 1.3503	1424.0 1425.2 1426.4 1427.5 1428.7 1429.8 1431.0 1432.2 1433.3 1434.5	1.4542 + 7 1.4243 1.3952 1.3666 1.3387 1.3114 1.2847 7.2586 1.2331	9.7928 - 5 1.0006 - 4 1.0224 1.0446 1.0672 1.0903 1.1138 1.1379 1.1623 1.1873	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
145000 145500 146000 146500 147000 147500 148000 148500 149000	143999 14492 144985 145478 145971 146464 146957 147450 147943 148436	31.731 31.730 31.728 31.727 31.725 31.724 31.722 31.721 31.719	4.3541 - 3 4.2626 4.1731 4.0857 4.0003 3.9167 3.8351 3.7553 3.6773 3.6010	25507. 25549. 25591. 25633. 25675. 25718. 25760. 25802. 25844. 25887.	1.2942 +21 1.2670 1.2405 1.2146 1.1892 1.1645 1.1402 1.1166 1.0934 1.0708	1435.6 1436.8 1437.9 1437.9 1440.2 1441.4 1442.5 1443.7 1444.8	1.1837 + 7 1.1598 1.1365 1.1136 1.0912 1.0694 1.0480 1.0270 1.0065 9.8646 + 6	1.2128 - 4 1.2388 1.2653 1.2923 1.3198 1.3479 1.3765 1.4057 1.4355	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
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TABLE ▼.-Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

		 _						, 	
A 14:		Accel.	Canaisia	Pressure	Number	Portiolo	Collinion	Maan from	Molecular
Alti	tude	due to	Specific	scale	Number	Particle	Collision		
<u></u>	 _		weight		density	speed	frequency	path	weight
H, ft	Z, ft	gruving	ω lb ft ⁻² sec ⁻²	110.5	n, ft ⁻³	∇, ft sec '	ν, sec ⁻¹	L, ft	l M
'', ''	-,	g, ft sec-	ω, lb ft ⁻² sec ⁻²	H _P , ft		,	,	-,	
		1							
150000	151087	31.713	3.3700 - 3	26020.	1.0022 +21	1449.6	9.2563 + 6	1.5661 - 4	28.964
150500	151594	31.711	3.2995	26063.	9.8134 +20	1450.7	9.0705	1.5994	28.964
151000 151500	152101	31.710	3.2307	26106.	9.6091	1451.9	8.8887	1-6334	28.964
152000	152609 153116	31.708 31.707	3.1633 3.0975	26149. 26192.	9.4093 9.2140	1453.1 1454.2	8.7109 8.5368	1.6681	28.964
152500	153623	31.705	3.0332	26235.	9.0230	1455.4	8.3665	1.7395	28.964
153000	154131	31.704	2.9703	26278.	8.8363	1456.5	8.1999	1.7763	28.964
153500	154638	31.702	2.9088	26320.	8.6538	1457.7	8.0369	1.8137	28.964
154000 154500	155146 155653	31.701 31.699	2.8486 2.7925	26363. 26381.	8.4753	1458.8	7.8773 7.7248	1.8519	28.964
134300	133033	31.077	2.1723	20301.	8.3085	1437.3	1.1248	1.8891	28.964
155000	156161	31.698	2.7391 - 3	26382.	8.1502 +20	1459.3	7.5776 + 6	1.9258 - 4	28.964
155500 156000	156668	31.696	2.6868	26384.	7.9949	1459.3	7,4332	1.9632	28.964
156500	157176 157683	31.694	2.6355 2.5851	26385. 26386.	7.8426 7.6932	1459.3	7.2916 7.1526	2.0013	28.964
157000	158191	31.691	2.5358	26388.	7.5466	1459.3	7.0164	2.0798	28.964 28.964
157500	158699	31.690	2.4873	26389.	7.4028	1459.3	6.8827	2.1202	28.964
158000	159206	31.688	2.4398	26390.	7.2618	1459.3	6.7515	2.1614	28.964
158500 159000	159714	31.687 31.685	2.3932	26391.	7.1234	1459.3	6.6229	2.2034	28.964
159500	160222 160729	31.684	2.3475 2.3027	26393. 26394.	6.9877 6.8546	1459.3	6.4967 6.3729	2.2462	28.964 28.964
		1							1
160000	161237	31.682	2.2587 - 3	26395.	6.7239 +20	1459.3	6.2515 + 6	2.3343 - 4	28.964
160500	161745 162253	31.681 31.679	2.2155 2.1732	26396. 26398.	6.5958 6.4702	1459.3	6.1324	2.3796 2.4258	28.964 28.964
161500	162761	31.678	2.1317	26399.	6.3469	1459.3	5.9009	2.4258	28.964
162000	163268	31.676	2.0910	26400.	6.2260	1459.3	5.7885	2.5210	28.964
162500	163776	31.675	2.0511	26402.	6.1073	1459.3	5.6782	2.5700	28.964
163000 163500	164284	31.673	2.0119 1.9735	26403. 26404.	5.9910 5.8768	1459.3	5.5700 5.4639	2.6199	28.964
164000	165300	31.670	1.9358	26405.	5.7649	1459.3	5.3598	2.6708 2.7226	28.964 28.964
164500	165808	31.668	1.8988	26407.	5.6550	1459.3	5.2577	2.7755	28.964
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165000 165500	166316 166824	31.667 31.665	1.8625 - 3 1.8269	26408. 26409.	5.5473 +20 5.4416	1459.3	5.1575 + 6	2.8294 - 4	28.964
166000	167332	31.664	1.7921	26410.	5.3379	1459.3	5.0592 4.9629	2.8844 2.9404	28.964
166500	167840	31.662	1.7578	26412.	5.2362	1459.3	4.8683	2.9975	28.964
167000	168348	31.661	1.7242	26413.	5.1364	1459.3	4.7755	3.0557	28.964
167500 168000	168856	31.659	1.6913	26414.	5-0386	1459.3	4.6845	3.1151	28.964
168500	169364 169873	31.658 31.656	1.6590 1.6273	26416. 26417.	4.9426 4.8484	1459.3	4.5953 4.5077	3.1756 3.2373	28.964 28.964
169000	170381	31.655	1.5962	26418.	4.7560	1459.3	4.4219	3.3002	28.964
169500	170889	31.653	1.5658	26419.	4.6654	1459.3	4.3376	3.3643	28.964
170000	171397	31.652	1.5358 - 3	26421.	4.5765 +20	1459.3	4.2550 + 6	3.4296 - 4	28.964
170500	171906	31.650	1.5065	26422.	4.4893	1459.3	4.1739	3.4962	28.964
171000	172414	31.649	1.4790	26400.	4.4077	1458.6	4.0962	3.5610	28.964
171500	172922	31.647	1.4524	26371.	4.3285	1457.8	4.0203	3.6262	28.964
172000 172500	173431 173939	31.645 31.644	1.4262	26343. 26314.	4.2506 4.1740	1457.0	3.9457 3.8724	3.6926 3.7603	28.964
173000	174447	31.642	1.3751	26286.	4.0987	1455.3	3.8004	3.8294	28.964
173500	174956	31.641	1.3502	26257.	4.0247	1454.5	3.7297	3.8998	28.964
174000	175464	31.639	1.3257	26229.	3.9520	1453.7	3.6602	3.9716	28.964
174500	175973	31.638	1.3017	26200.	3.8805	1452.9	3.5920	4.0448	28.964
175000	176481	31.636	1.2780 - 3	26172.	3.8102 +20	1452.0	3.5249 + 6	4.1194 - 4	28.964
175500	176990	31.635	1.2548	26143.	3.7411	1451-2	3.4590	N.1955	28.964
176000 176500	177498 178007	31.633 31.632	1.2320	26115. 26086.	3.6732 3.6064	1450.4	3.3943 3.3307	4.2731 4.3522	28.964 28.964
177000	178515	31.630	1.1874	26058.	3.5408	1448.7	3.2682	4.4328	28.964
177500	179024	31.629	1.1658	26029.	3.4763	1447.9	3.2068	4.5151	28.964
178000	179533	31.627	1.1444	26001.	3.4129	1447.1	3.1465	4.5990	28.964
178500 179000	180041 180550	31.626	1.1235	25972. 25944.	3.3505 3.2893	1446.2	3.0873 3.0291	4.6845 4.7717	28.964
179500	181059	31.623	1.0827	25915.	3.2291	1444.6	2.9720	4.8607	28.964 28.964
									1
180000 180500	181567 182076	31.621	1.0628 - 3 1.0432	25887. 25858.	3.1699 +20 3.1118	1443.8	2.9158 + 6	4.9514 - 4	28.964
181000	182585	31.618	1.0240	25830.	3.0546	1442.9	2.8607 2.8066	5.0439 5.1383	28.964 28.964
181500	183094	31.616	1.0051	25801.	2.9985	1441.3	2.7534	5.2345	28.964
182000	183602	31-615	9.8660 - 4	25772.	2.9433	1440.4	2.7011	5.3327	28.964
182500 183000	184111 184620	31.613	9.6837	25744.	2.8891	1439.6	2.6498	5.4328	28.964
183500	185129	31.612	9.5046 9.3286	25715. 25687.	2.8358 2.7834	1438.8	2.5994 2.5500	5.5349 5.6391	28.964
184000	185638	31.609	9.1557	25658.	2.7319	1437.1	2.5014	5.7453	28.964
184500	186147	31.607	8.9858	25630.	2.6813	1436.3	2.4536	5.8536	28.964
185000	186656	31.606	8.8188 - 4	25601.	2.6317 +20	1435.4	2.4068 + 6	5.9642 - 4	28.964
185500	187165	31.604	8.6548	25573.	2.5828	1434.6	2.3607	6.0769	28.964
186000	187674	31.603	8.4936	25544.	2.5348	1433.8	2.3155	6.1919	28.964
186500 187000	188183 188692	31.601 31.600	8.3352 8.1797	25515. 25487.	2.4877 2.4414	1432.9	2.2711	6.3093	28.964
187500	189201	31.598	8.0268	25457. 25458.	2.3959	1432.1	2.2275 2.1847	6.4290	28.964
188000	189710	31.597	7.8766	25430.	2.3512	1430.4	2.1427	6.6757	28.964
188500	190220	31.595	7.7291	25401.	2.3072	1429.6	2.1015	6.8028	28.964
189000 189500	190729 191238	31.593 31.592	7.5841 7.4418	25373. 25344.	2.2641	1428.7	2.0609 2.0211	6.9325 7.0648	28.964
1 .0.300	,,,230	1		-JJ776		1721.7	2.0211	7.0040	28.964
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Altit	ude	Accel. due to	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
Z, ft	H, ft	g, ft sec ⁻²	ω, ib ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec ⁻¹	ν , sec ⁻¹	L, ft	М
150000 150500 151500 151500 152500 152500 153500 154000 154500	148929 149422 149914 150407 150900 151393 151886 152378 152871 153364	31.716 31.715 31.713 31.712 31.710 31.709 31.707 31.706 31.704 31.703	3.5264 - 3 3.4535 3.3822 3.3125 3.2443 3.1776 3.1125 3.0487 2.9864 2.9254	25929. 25971. 26013. 26055. 26098. 26140. 26182. 26224. 26224. 26309.	1.0487 +21 1.0270 1.0059 9.8518 +20 9.6495 9.4517 9.2583 9.0691 8.8841 8.7031	1447.1 1448.2 1449.4 1450.5 1451.7 1452.8 1454.0 1455.1 1456.2 1457.4	9.6684 + 6 9.4764 9.2885 9.1047 8.9247 8.7487 8.5763 8.4076 8.2425 8.0810	1.4967 - 4 1.5283 1.5604 1.5932 1.6266 1.6060 1.6953 1.7307 1.7667	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
155000 155500 156000 156500 156500 157500 158000 158500 159500	153856 154349 154842 155334 155827 156319 156812 157304 157797 158289	31.701 31.700 31.698 31.696 31.695 31.695 31.692 31.690 31.689	2.8658 - 3 2.8088 2.7559 2.7040 2.6532 2.6032 2.5542 2.5062 2.4590 2.4128	26351. 26381. 26382. 26383. 26385. 26386. 26387. 26388. 26390. 26391.	8.5261 +20 8.3569 8.2000 8.0461 7.8951 7.7468 7.6014 7.4588 7.3188 7.1814	1458.5 1459.3 1459.3 1459.3 1459.3 1459.3 1459.3 1459.3	7.9228 + 6 7.7698 7.6239 7.4808 7.3403 7.2025 7.0673 6.9347 6.8045 6.6768	1.8409 - 4 1.8782 1.9141 1.9507 1.9880 2.0261 2.0648 2.1043 2.1446 2.1856	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
160000 160500 161000 161500 162500 162500 163000 163500 164500	158782 159274 159766 160259 160751 161243 161736 162228 162720 163212	31.686 31.684 31.683 31.681 31.678 31.677 31.677 31.675 31.674	2.367% - 3 2.3228 2.2791 2.2363 2.19%2 2.1529 2.112% 2.0727 2.0337 1.9955	26392. 26393. 26395. 26396. 26397. 26398. 26400. 26401. 26402. 26403.	7.0466 +20 6.9144 6.7846 6.6573 6.5324 6.4098 6.2896 6.1716 6.0558 5.9422	1459.3 1459.3 1459.3 1459.3 1459.3 1459.3 1459.3 1459.3	6.5515 + 6 6.4286 6.3079 6.1896 6.0734 5.9595 5.8477 5.7380 5.6303 5.5247	2.2274 - 4 2.2700 2.3134 2.35577 2.4027 2.4487 2.4555 2.5432 2.5918 2.6414	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
165000 165500 166000 166500 167500 167500 168000 168500 169500	163705 164197 164689 165181 165673 166165 166657 167149 167641 168133	31.671 31.669 31.668 31.666 31.665 31.663 31.662 31.660 31.659 31.657	1.9579 - 3 1.9211 1.8850 1.8496 1.8148 1.7807 1.7472 1.7143 1.6821 1.6505	26405. 26406. 26407. 26408. 26410. 26412. 26413. 26413. 26416.	5.8307 +20 5.7214 5.6141 5.5088 5.4054 5.3041 5.2046 5.1070 5.0112 4.9173	1459.3 1459.3 1459.3 1459.3 1459.3 1459.3 1459.3 1459.3 1459.3	5.4211 + 6 5.3194 5.2196 5.1217 5.0256 4.9314 4.8389 4.7482 4.6591 4.5718	2.6919 - 4 2.7433 2.7958 2.8492 2.9037 2.9592 3.0157 3.0734 3.1321 3.1919	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
170000 170500 171000 171500 172500 172500 173500 173500 174500	168625 169117 169609 170101 170593 171085 171577 172068 172560 173052	31.656 31.654 31.653 31.651 31.650 31.648 31.647 31.645 31.644	1.6195 - 3 1.5890 1.5592 1.5299 1.5011 1.4745 1.4483 1.4226 1.3974	26417. 26418. 26420. 26421. 26422. 26395. 26367. 26339. 26311. 26283.	4.8251 +20 4.7346 4.6459 4.5588 4.4733 4.3942 4.3165 4.2400 4.1649 4.0910	1459.3 1459.3 1459.3 1459.3 1459.3 1458.5 1458.7 1456.1 1455.3	4.4861 + 6 4.4020 4.3194 4.2385 4.1590 4.0832 4.0888 3.9356 3.8637 3.7931	3.2529 - 4 3.3151 3.3784 3.4430 3.5087 3.5719 3.6362 3.7018 3.7686 3.8366	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
175000 175500 176000 176500 177500 177500 178000 178500 179500	1735 h h 1740 35 1745 27 1750 19 1755 10 1760 02 1764 93 1769 85 1774 77 1779 68	31.641 31.639 31.638 31.636 31.635 31.633 31.632 31.630 31.629	1.3481 - 3 1.3240 1.3004 1.2772 1.2543 1.2319 1.2098 1.1881 1.1668 1.1458	26255. 26227. 26199. 26171. 26143. 26115. 26087. 26059. 26031. 26002.	4.0183 +20 3.9469 3.8767 3.8076 3.7397 3.6729 3.6073 3.5427 3.4793 3.4169	1454.4 1453.6 1452.8 1452.0 1451.2 1450.4 1449.6 1447.9 1447.1	3.7236 + 6 3.6554 3.5883 3.5224 3.4577 3.3940 3.3315 3.2700 3.2097 3.1503	3.9060 - 4 3.9767 4.0488 4.1222 4.1971 4.2734 4.3511 4.4304 4.5112 4.5936	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
180000 180500 181000 181500 182500 182500 183000 183500 184500	178460 178951 179442 179934 180425 181408 181899 182391 182882	31.626 31.624 31.623 31.620 31.618 31.617 31.615 31.614 31.612	1.1252 - 3 1.1049 1.0850 1.0654 1.0461 1.0272 1.0086 9.9031 - 4 9.7234 9.5467	25974. 25946. 25918. 25890. 25862. 25834. 25806. 25778. 25750.	3.3555 +20 3.2952 3.2360 3.1777 3.1204 3.0641 3.0087 2.9543 2.9008 2.8483	1446.3 1445.5 1444.7 1443.9 1443.9 1442.2 1441.4 1440.6 1439.8	3.0920 + 6 3.0348 2.9785 2.9232 2.8689 2.8155 2.7631 2.7116 2.6610 2.6113	4.6775 - 4 4.7631 4.8504 4.9393 5.0300 5.1224 5.2167 5.3128 5.4107 5.5106	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
185000 185500 186000 186500 187500 187500 188000 188500 189500	183373 183864 184356 184847 185338 185829 186320 186811 187302 187793	31.611 31.609 31.608 31.606 31.605 31.603 31.602 31.600 31.599	9.3730 - 4 9.2023 9.0346 8.8697 8.7076 8.5484 8.3919 8.2381 8.0869 7.9383	25694. 25666. 25638. 25610. 25582. 25554. 25526. 25498. 25470. 25442.	2.7966 +20 2.7458 2.6959 2.6468 2.5512 2.5512 2.5046 2.4588 2.4138 2.3695	1438.1 1437.3 1436.5 1435.7 1434.9 1434.0 1433.2 1432.4 1431.6	2.5624 + 6 2.5145 2.4673 2.4210 2.3756 2.3309 2.2870 2.2439 2.2016 2.1600	5.6124 + 4 5.7163 5.8221 5.9301 6.0401 6.1524 6.2668 6.3835 6.5025 6.6239	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

TABLE Σ .—Continued GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

		Accel.		Pressure		Ī		I	
Altitu	ude	due to	Specific weight	scale	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
H, ft	Z, ft	gravity g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	height H _P , ft	n, ft ^{-\$}	⊽, ft sec⁻¹	ν , sec-	Ĺ, ft	M
190000 190500 191000 191500 192000 192500 193000	191747 192256 192766 193275 193784 194294 194803	31.590 31.589 31.587 31.586 31.584 31.583	7.3019 - 4 7.1645 7.0295 6.8969 6.7666 6.6387 6.5131	25315. 25287. 25258. 25230. 25201. 25172. 25144.	2.1800 +20 2.1391 2.0989 2.0594 2.0206 1.9825 1.9451	1427.1 1426.2 1425.4 1424.5 1423.7 1422.8 1422.0	1.9821 + 6 1.9437 1.9061 1.8691 1.8328 1.7972	7.1997 - 4 7.3375 7.4780 7.6214 7.7677 7.9170 8.0694	28.964 28.964 28.964 28.964 28.964 28.964 28.964
193500 194000 194500	195312 195822 196331	31.580 31.578 31.577	6.3896 6.2684 6.1493	25115. 25087. 25058.	1.9083 1.8722 1.8367	1421.2 1420.3 1419.5	1.7279 1.6942 1.6611	8.2249 8.3835 8.5454	28.964 28.964 28.964
195000 195500 196000 196500 197500 197500 198500 199500	196841 197350 197860 198369 198879 198879 19988 199898 200408 200917 201427	31.575 31.574 31.572 31.571 31.569 31.567 31.566 31.564 31.563	6.0324 - 4 5.9175 5.8047 5.6939 5.5851 5.4783 5.3734 5.2703 5.1691 5.0698	25029. 25001. 24972. 24944. 24915. 24886. 24858. 24829. 24800. 24772.	1.8019 +20 1.7677 1.7340 1.7010 1.6686 1.6368 1.6055 1.5748 1.5150	1418.6 1417.8 1416.9 1416.1 1415.2 1414.4 1413.5 1412.7 1411.8 1411.0	1.6286 + 6 1.5967 1.5654 1.55347 1.5046 1.4750 1.4459 1.4174 1.3894	8.7107 - 4 8.8793 9.0514 9.2271 9.4064 9.5894 9.7762 9.9668 1.0161 - 3 1.0360	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
200000 200500 201000 201500 202500 203500 203500 204000 204500	201937 202447 202956 203466 203976 204486 204996 205506 206015 206525	31.560 31.558 31.557 31.555 31.554 31.552 31.551 31.551 31.549 31.548	N.9722 - N.8807 N.7922 N.7052 N.6194 N.5351 N.5520 N.370N N.2900 N.2109	24743. 24692. 24634. 24575. 24517. 24458. 24400. 24341. 24283. 24224.	1.4859 +20 1.4587 1.4323 1.4063 1.3808 1.3556 1.3359 1.3065 1.2825	1410.1 1408.7 1407.0 1405.3 1403.6 1401.8 1400.1 1398.4 1396.7 1395.0	1.3350 + 6. 1.3091 1.2839 1.2591 1.2347 1.2108 1.1872 1.1640 1.1413 1.1189	1.0563 - 3 1.0760 1.0958 1.1161 1.1367 1.1578 1.1794 1.2013 1.2238 1.2467	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
205000 205500 206000 206500 207500 208000 208000 209000 209500	207035 207545 208055 208565 209075 209586 210096 2110606 211116 211626	31.545 31.543 31.541 31.540 31.538 31.537 31.535 31.535 31.534 31.532	4.1330 - 4 4.0564 3.9811 3.9069 3.8340 3.7623 3.6917 3.6223 3.5540 3.4868	24166. 24107. 24049. 23990. 23932. 23813. 23814. 23756. 23697. 23639.	1.2357 +20 1.2129 1.1904 1.1683 1.1466 1.1252 1.1041 1.0834 1.0630 1.0430	1393.3 1391.5 1389.8 1386.1 1386.4 1384.6 1382.9 1381.2 1379.4 1377.7	1.0969 + 6 1.0753 1.0541 1.0332 1.0127 9.9259 + 5 9.7279 9.5335 9.3424 9.1547	1.2701 - 3 1.2941 1.3185 1.3434 1.3689 1.3950 1.4216 1.426 1.4467 1.4765	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
210000 210500 211000 211000 212000 212000 213000 213500 214000 214500	212136 212647 213157 213167 214177 214688 215198 215709 216219 216729	31.529 31.528 31.526 31.525 31.523 31.522 31.520 31.517 31.517	3.4207 - 4 3.3558 3.2919 3.2290 3.1672 3.1065 3.0467 2.9880 2.9302 2.8734	23580. 23522. 23463. 23404. 23346. 23287. 23128. 23170. 23111. 23053.	1.0233 +20 1.0039 9.8481 +19 9.6606 9.4762 9.2948 9.1165 8.9411 8.7686 8.5991	1375.9 1374.2 1372.5 1370.7 1369.0 1367.2 1365.4 1363.7 1361.9 1360.2	8.9704 + 5 8.7893 8.6114 8.4366 8.2650 8.0964 7.9309 7.7683 7.6086 7.4519	1.5339 - 3 1.5635 1.5938 1.6247 1.6563 1.6886 1.7217 1.7555 1.7900 1.8253	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
215000 215500 216000 216000 217000 217500 218000 218500 219000 219500	217240 217750 218261 218771 219282 219793 220303 220814 221324 221835	31.514 31.512 31.511 31.509 31.508 31.506 31.505 31.503 31.502 31.500	2.8175 - 4 2.7627 2.7087 2.6556 2.6035 2.5523 2.55019 2.4524 2.4037 2.3559	22994. 22935. 22877. 22818. 22759. 22701. 22642. 22583. 22524. 22466.	8.4324 +19 8.2685 8.1074 7.9490 7.7933 7.6403 7.4898 7.3420 7.1967 7.0539	1358.4 1356.6 1354.9 1353.1 1353.3 1349.5 1347.8 1346.0 1344.2 1342.4	7.2979 + 5 7.1468 6.9984 6.8527 6.7097 6.5693 6.4314 6.2961 6.1634 6.0330	1.8614 - 3 1.8982 1.9360 1.9745 2.0140 2.0543 2.0956 2.1378 2.1810 2.2251	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
220000 220500 221000 221500 222000 223000 223500 224000 224500	222346 222857 223367 223878 224389 224900 225411 225921 226432 226943	31.499 31.497 31.494 31.494 31.493 31.491 31.490 31.488 31.487	2.3089 - 4 2.2627 2.2174 2.1728 2.1290 2.0860 2.0437 2.0022 1.9614 1.9213	22407. 22348. 22290. 22231. 22172. 22113. 22055. 21996. 21937. 21878.	6.9135 +19 6.7756 6.6401 6.5069 6.3761 6.2475 6.1212 5.9971 5.8752 5.7555	1340.6 1338.8 1337.0 1335.3 1333.5 1331.7 1329.9 1328.0 1326.2 1324.4	5.9051 + 5 5.7796 5.6564 5.5355 5.4169 5.3005 5.1863 5.0743 4.9644 4.8566	2.2703 - 3 2.3165 2.3638 2.4122 2.4617 2.5123 2.5642 2.6172 2.6715 2.7271	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
225000 225500 226000 226500 227500 227500 228500 228000 229000 229500	227454 227965 228476 228987 229498 230009 230521 231032 231543 232054	31.483 31.482 31.480 31.479 31.477 31.476 31.474 31.473 31.471	1.8820 - 4 1.8433 1.8054 1.7681 1.7315 1.6955 1.6602 1.6255 1.5915	21820. 21761. 21702. 21643. 21585. 21526. 21467. 21408. 21349.	5.6379 +19 5.5223 5.4089 5.2974 5.1880 5.0805 4.9750 4.8713 4.7696 4.6697	1322.6 1320.8 1319.0 1317.2 1315.3 1313.5 1311.7 1309.9 1308.0 1306.2	4.7508 + 5 4.6471 4.5453 4.4456 4.3477 4.2517 4.1576 4.0653 3.9748 3.8861	2.7840 - 3 2.8422 2.9018 2.9629 3.0254 3.0894 3.1549 3.2221 3.2908 3.3612	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

Altit	ude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
Z, ft	H, ft	gravity g, ft sec ⁻²	ω, lb ft ⁻² sec ⁻²	height H _P , ft	n, ft ⁻³	∇, ft sec ⁻¹	ν , sec ⁻¹	L, ft	M
190000 190500 191000 191500 192500 192500 193500 194500 194500	188284 188775 189266 189757 190248 190739 191230 191721 192212 192703	31.596 31.594 31.593 31.591 31.590 31.588 31.587 31.585 31.584 31.582	7.7924 - 4 7.6489 7.5080 7.3694 7.2333 7.0996 6.9682 6.8391 6.7122 6.5875	25413. 25385. 25387. 25329. 25301. 25273. 25245. 25217. 25189. 25161.	2.3261 +20 2.2834 2.2414 2.2002 2.1596 2.1198 2.0806 2.0422 2.0044 1.9673	1429.9 1429.1 1428.3 1427.5 1426.6 1425.8 1425.0 1424.2 1423.3 1422.5	2.1192 + 6 2.0790 2.0396 2.0010 1.9630 1.9256 1.8890 1.8530 1.8177 1.7829	6.7477 - 4 6.8739 7.0026 7.1339 7.2678 7.4043 7.5436 7.6857 7.8306 7.9784	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
195000 195500 196000 196500 197500 197500 198000 198500 199500	193193 193684 194175 194666 195156 195647 196138 196628 197119 197609	31.581 31.579 31.578 31.576 31.575 31.573 31.572 31.570 31.569	6.4651 - 4 6.3447 6.2265 6.1104 5.9963 5.8842 5.7740 5.6658 5.5596 5.4552	25133. 25105. 25077. 25049. 25020. 24992. 24964. 24936. 24908.	1.9308 +20 1.8949 1.8597 1.8251 1.7911 1.7577 1.7249 1.6927 1.6610 1.6299	1421.7 1420.8 1420.0 1419.2 1418.4 1417.5 1416.7 1415.9 1415.0 1414.2	1.7489 + 6 1.7154 1.6825 1.6503 1.6186 1.5875 1.5569 1.5269 1.4975	8.1291 - 4 8.2829 8.4398 8.5998 8.7630 8.9296 9.0994 9.2727 9.4495 9.6299	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
200000 200500 201000 201500 202000 202500 203500 203500 204000 204500	198100 198591 199081 199572 200062 200552 201043 201533 202024 202514	31.566 31.564 31.563 31.561 31.560 31.558 31.555 31.555 31.555	5.3526 - 4 5.2519 5.1529 5.0557 4.9603 4.8714 4.7847 4.6994 4.6154 4.5327	24852. 24824. 24796. 24768. 24740. 24686. 24629. 24572. 245714. 24457.	1.5993 +20 1.5693 1.5398 1.5108 1.4824 1.4559 1.4300 1.4046 1.3796 1.3549	1413.4 1412.5 1411.7 1410.9 1410.0 1408.5 1406.8 1405.1 1403.5 1401.8	1.4402 + 6 1.4123 1.3849 1.3581 1.3317 1.3065 1.2818 1.2575 1.2336 1.2101	9.8140 - 4 1.0002 - 3 1.0193 1.0389 1.0588 1.0781 1.0976 1.1174 1.1377 1.1584	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
205000 205500 206000 206500 207500 207500 208000 208500 209500	203004 203495 203985 204475 204965 205456 205946 206436 206926 207416	31.551 31.549 31.546 31.545 31.545 31.542 31.542 31.540 31.539	4.4513 - 4 4.3712 4.2924 4.2148 4.1384 4.0632 3.9864 3.8447 3.8447	24399. 24342. 24285. 24227. 24170. 24112. 24055. 23998. 23940. 23883.	1.3307 +20 1.3068 1.2833 1.2601 1.2373 1.2149 1.1728 1.1711 1.1498	1400.1 1398.4 1396.8 1395.1 1393.4 1391.7 1390.0 1388.3 1386.6 1384.9	1.1870 + 6 1.1643 1.1420 1.1200 1.0984 1.0772 1.0564 1.0359 1.0157 9.9594 + 5	1.1795 - 3 1.2011 1.2231 1.2456 1.2685 1.2919 1.3158 1.3402 1.3651 1.3906	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
210000 210500 211000 211500 212500 213000 213500 214000 214500	207906 208396 208886 209376 209866 210356 210846 211336 211826 212316	31.536 31.534 31.533 31.531 31.530 31.528 31.527 31.525 31.525	3.7048 - 4 3.6366 3.5694 3.5033 3.4383 3.3743 3.3114 3.2495 3.1886 3.1287	23825. 23768. 23711. 23653. 23596. 23538. 23481. 23424. 23366. 23309.	1.1080 +20 1.0877 1.0676 1.0479 1.0285 1.0094 9.9064 +19 9.7217 9.5400 9.3612	1383.2 1381.5 1379.8 1378.1 1376.4 1374.7 1373.0 1371.3 1369.6 1367.8	9.7648 + 5 9.5735 9.3856 9.2009 9.0193 8.8410 8.6657 8.4935 8.3243 8.1581	1.4165 - 3 1.4431 1.4701 1.4978 1.5261 1.5549 1.5844 1.6145 1.6453	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
215000 215500 216000 216500 217500 217500 218000 218500 219500	212806 213296 213785 214275 214765 215255 215745 216234 216724 217214	31.521 31.519 31.518 31.516 31.515 31.513 31.512 31.510 31.509 31.507	3.0698 - 4 3.0118 2.9548 2.8988 2.8437 2.7895 2.7362 2.6837 2.6322 2.5815	23251. 23194. 23136. 23079. 23021. 22964. 22907. 22849. 22792. 22734.	9.1853 +19 9.0124 8.8423 8.6749 8.5104 8.3485 6.1894 8.0329 7.8790 7.7276	1366.1 1364.4 1362.7 1361.0 1359.2 1357.5 1355.8 1354.0 1352.3 1350.6	7.9948 + 5 7.8344 7.6768 7.5220 7.3699 7.2206 7.0739 6.9298 6.7883 6.6494	1.7088 - 3 1.7416 1.7751 1.8093 1.8443 1.8800 1.9166 1.9539 1.9921 2.0311	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
220000 220500 221000 221500 222500 223000 223500 223500 224000 224500	217703 218193 218682 219172 219661 220151 220640 221130 221619 222109	31.506 31.504 31.503 31.501 31.500 31.498 31.497 31.495 31.494	2.5317 - 4 2.4827 2.4345 2.3872 2.3406 2.2949 2.2499 2.2499 2.2057 2.1623 2.1196	22677. 22619. 22562. 22504. 22447. 22389. 22332. 22274. 22217. 22159.	7.5788 +19 7.4325 7.2887 7.1473 7.0083 6.8716 6.7373 6.6053 6.4755 6.3479	1348.8 1347.1 1345.3 1343.6 1341.8 1340.1 1338.3 1336.6 1334.8 1333.1	6.5130 + 5 6.3790 6.2474 6.1183 5.9915 5.8670 5.7448 5.6248 5.5070 5.3914	2.0710 - 3 2.1117 2.1534 2.1960 2.2396 2.2841 2.3297 2.3762 2.4239 2.4726	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
225000 225500 226500 226500 227500 227500 228500 229500 229500	222598 223087 223577 224066 224555 225045 225534 226023 226512 227002	31.491 31.489 31.488 31.485 31.485 31.482 31.482 31.480 31.479	2.0776 - 4 2.0364 1.9959 1.9561 1.9169 1.8785 1.8407 1.8036 1.7672	22102. 22044. 21987. 21929. 21872. 21814. 21757. 21699. 21642. 21584.	6.2225 +19 6.0993 5.9782 5.8592 5.7423 5.6274 5.5145 5.4036 5.2947 5.1876	1331.3 1329.5 1327.8 1326.0 1324.2 1322.5 1320.7 1318.9 1317.1 1315.3	5.2779 + 5 5.1666 5.0573 4.9500 4.8448 4.7415 4.6401 4.5407 4.4431 4.3474	2.5224 - 3 2.5733 2.6255 2.6788 2.7333 2.7891 2.8462 2.9046 2.9644 3.0256	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	ude	Accel.	Specific	Pressure scale	Number	Particle	Collision	Mean free	Molecular weight
H, ft	Z, ft		weight ω , lb ft ⁻² sec ⁻²	height H _P , ft	density n, ft ⁻³	speed ∇, ft sec⁻'	frequency ν , sec ⁻¹	L, ft	M
230000 230500 231500 231500 232500 232500 233500 234500 234500	232565 233076 233588 234099 234610 235122 235633 236144 236656 237167	31.468 31.467 31.465 31.464 31.462 31.461 31.459 31.458 31.456	1.5253 - 4 1.4931 1.4615 1.4605 1.4000 1.3701 1.3408 1.3120 1.2837 1.2560	21232. 21173. 21114. 21055. 20996. 20937. 20879. 20820. 20761. 20702.	4.5716 +19 4.4753 4.3807 4.2880 4.1969 4.1075 4.0197 3.9336 3.8891 3.7662	1304.4 1302.5 1300.7 1298.8 1297.0 1295.1 1293.3 1291.4 1289.6 1287.7	3.7991 + 5 3.7139 3.6303 3.5483 3.4680 3.3893 3.3122 3.2365 3.1625 3.0899	3.4333 - 3 3.5072 3.5829 3.6604 3.7399 3.8213 3.9047 3.9901 4.0777 4.1675	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
235000 235500 236000 236500 237500 237500 238500 238500 239500	237679 238190 238702 239213 239725 240236 240748 241259 241771 242283	31.453 31.451 31.450 31.448 31.447 31.445 31.444 31.442 31.441	1.2288 - 4 1.2021 1.1760 1.1503 1.1251 1.1004 1.0761 1.0523 1.0290 1.0061	20643. 20584. 20525. 20466. 20408. 20349. 20290. 20231. 20172. 20113.	3.6848 +19 3.6049 3.5266 3.4497 3.3743 3.3004 3.2278 3.1566 3.0868 3.0184	1285.8 1284.0 1282.1 1280.2 1278.4 1276.5 1274.6 1272.7 1270.8 1268.9	3.0187 + 5 2.9490 2.8807 2.8138 2.7483 2.6841 2.6212 2.5596 2.4993 2.4403	4.2596 - 3 4.3539 4.4506 4.5498 4.6515 4.7557 4.8626 4.9723 5.0847	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
240000 240500 241500 241500 242500 242500 243500 243500 244500	242794 243306 243818 244330 244842 245353 245865 246377 246889 247401	31.438 31.435 31.435 31.432 31.432 31.429 31.427 31.427 31.425	9.8372 - 5 9.6173 9.4016 9.1902 8.9828 8.7796 8.5804 8.3851 8.1937 8.0060	20054. 19995. 19936. 19837. 19818. 19759. 19700. 19641. 19582. 19523.	2.9512 +19 2.8854 2.8208 2.7575 2.6954 2.6346 2.5749 2.5164 2.4591 2.4029	1267.1 1265.2 1263.3 1261.4 1259.5 1257.6 1255.6 1253.7 1251.8 1249.9	2.3824 + 5 2.3258 2.2703 2.2161 2.1629 2.1109 2.0599 2.0101 1.9613 1.9135	5.3183 - 3 5.4397 5.5642 5.6919 5.8230 5.9575 6.0956 6.2372 6.3826 6.5319	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
245000 245500 246000 246500 247500 247500 248000 248500 249500	247913 248425 248937 249449 249961 250473 250985 251497 252009 252521	31.422 31.421 31.42 31.42 31.42 31.41 31.41 31.41 31.41	7.8222 - 5 7.6420 7.465 7.292 7.123 6.957 6.794 6.634 6.478 6.325	19464- 19405- 19346- 19287- 19228- 19169- 19110- 19051- 18992- 18933-	2.3478 +19 2.2939 2.241 2.189 2.138 2.089 2.040 1.992 1.945 1.899	1248.0 1246.1 1244. 1242. 1240. 1238. 1236. 1234. 1233. 1231.	1.8668 + 5 1.8211 1.776 1.773 1.690 1.648 1.607 1.567 1.528 1.489	6.6851 - 3 6.8424 7.004 7.170 7.340 7.515 7.695 7.879 8.069	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
250000 250500 251000 251500 252500 252500 253500 253500 254500	253034 253546 254058 254570 255083 255595 256107 256620 257132 257645	31.41 31.40 31.40 31.40 31.40 31.40 31.40 31.39	6.176 - 5 6.029 5.885 5.744 5.607 5.472 5.340 5.210 5.084 4.960	18874. 18815. 18756. 18697. 18638. 18579. 18520. 18461. 18401. 18342.	1.855 +19 1.811 1.767 1.725 1.684 1.604 1.505 1.527 1.490	1229. 1227. 1225. 1223. 1221. 1219. 1217. 1215. 1213. 1211.	1.452 + 5 1.415 1.379 1.344 1.310 1.276 1.244 1.211 1.180 1.150	8.464 - 3 8.669 8.880 9.097 9.321 9.550 9.786 1.003 - 2 1.028 1.053	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
255000 255500 256000 256500 257500 258000 258500 259500 259500	258157 258669 259182 259694 260207 260720 261232 261745 262257 262770	31.39 31.39 31.39 31.39 31.39 31.38 31.38 31.38 31.38	4.839 - 5 4.720 4.604 4.490 4.379 4.270 4.164 4.059 3.957 3.850	18283. 18224. 18165. 18106. 18047. 17988. 17928. 17869. 17810. 17789.	1.454 +19 1.418 1.383 1.349 1.316 1.283 1.251 1.220 1.189 1.157	1209. 1207. 1205. 1203. 1201. 1199. 1197. 1195. 1193.	1.120 + 5 1.091 1.062 1.034 1.007 9.802 + 4 9.542 9.289 9.041 8.789	1.080 - 2 1.107 1.135 1.163 1.193 1.223 1.254 1.287 1.320 1.356	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
260000 260500 261000 261500 262000 262500 263000 263500 264500 264500	263283 263796 264308 264821 265334 265847 266359 266872 267385 267898	31.38 31.37 31.37 31.37 31.37 31.37 31.37 31.37 31.36	3.740 - 5 3.634 3.530 3.430 3.332 3.237 3.145 3.056 2.969 2.884	17789. 17790. 17791. 17792. 17793. 17794. 17795. 17796. 17796.	1.124 +19 1.092 1.061 1.031 1.002 9.734 +18 9.457 9.189 8.928 8.674	1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192.	8.5%0 + % 8.297 8.061 7.832 7.610 7.39% 7.18% 6.979 6.781 6.589	1.396 - 2 1.437 1.479 1.522 1.567 1.612 1.660 1.708 1.758 1.810	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
265000 265500 266000 266500 267500 267500 268000 268500 269500	268411 268924 269437 269950 270463 270976 271489 272002 272516 273029	31.36 31.36 31.36 31.36 31.36 31.35 31.35 31.35	2-802 - 5 2-723 2-645 2-570 2-497 2-426 2-357 2-290 2-224 2-161	17798. 17799. 17800. 17801. 17802. 17802. 17803. 17804. 17805. 17806.	8.427 +18 8.188 7.955 7.729 7.510 7.297 7.089 6.888 6.692 6.502	1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192.	6.401 + 4 6.220 6.043 5.871 5.704 5.542 5.385 5.232 5.083 4.939	1.862 - 2 1.917 1.973 2.031 2.090 2.151 2.214 2.279 2.345 2.414	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

TABLE ☑.—Continued
GEOMETRIC ALTITUDE, ENGLISH UNITS

Altit	ude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
Z, ft	H, ft	gravity g,ft sec ⁻²	weight ω, lb ft ⁻² sec ⁻²	height H _P , ft	n, ft ⁻³	⊽, ft sec⁻'		Ĺ, ft	M
230000 230500 231000 231500 232500 232500 233500 233500 234500	227491 227980 228469 228958 229447 229936 230425 230914 231403 231892	31.476 31.474 31.473 31.471 31.470 31.468 31.467 31.465 31.465	1.6962 - 4 1.6616 1.6277 1.5943 1.5616 1.5294 1.4979 1.4669 1.4364 1.4065	21527. 21%69. 21%12. 21354. 21297. 21239. 21182. 21124. 21067. 21009.	5.0825 +19 4.9792 4.8777 4.7780 4.6801 4.5840 4.4896 4.3968 4.3058	1313.6 1311.8 1310.0 13108.2 1306.4 1304.6 1302.8 1301.0 1299.2 1297.4	4.2535 + 5 4.1613 4.0710 3.9823 3.8954 3.8101 3.7265 3.6445 3.5641 3.4852	3.0882 - 3 3.1523 3.2179 3.2850 3.3537 3.4240 3.4960 3.5698 3.6453 3.7226	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
235000 235500 236000 236500 237500 237500 238000 238500 239500	232381 232870 233359 233848 234337 234825 235314 235803 236292 236780	31.461 31.459 31.458 31.455 31.455 31.453 31.452 31.450 31.449	1.3772 - 4 1.3484 1.3201 1.2923 1.2650 1.2383 1.2120 1.1862 1.1609 1.1361	20951. 20894. 20836. 20779. 20721. 20664. 20506. 20549. 20491. 20433.	4.1286 +19 4.0424 3.9577 3.8747 3.7931 3.7130 3.6344 3.5573 3.4816 3.4073	1295.6 1293.8 1292.0 1290.1 1288.3 1286.5 1284.7 1282.8 1281.0 1279.2	3.4079 + 5 3.3321 3.2577 3.11849 3.1134 3.0434 2.9747 2.9075 2.8415 2.7769	3.8017 - 3 3.8828 3.9658 4.0508 4.1380 4.2272 4.3186 4.4122 4.5082	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
240000 240500 241500 241500 242500 242500 243500 243500 243500 244500	237269 237758 238246 238735 239224 239712 240201 240689 241178 241666	31.445 31.445 31.443 31.442 31.440 31.437 31.437 31.437 31.437	1.1117 - 4 1.0878 1.0643 1.04413 1.0187 9.9657 - 5 9.7483 9.5351 9.3259 9.1207	20376. 20318. 20261. 20263. 20146. 20088. 20030. 19973. 19915. 19858.	3.3344 +19 3.2628 3.1926 3.1237 3.0560 2.9897 2.9246 2.8608 2.7982	1277.4 1275.5 1273.7 1271.8 1270.0 1268.1 1266.3 1264.4 1262.6 1260.7	2.7136 + 5 2.6515 2.5907 2.5311 2.4728 2.4156 2.3595 2.3047 2.2509 2.1982	4.7073 - 3 4.8105 4.9163 5.0228 5.1359 5.2299 5.3667 5.865 5.6093 5.7352	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
245000 245500 246500 246500 247500 248000 248500 249500	242155 242643 243132 243132 243620 244108 244597 245085 245573 246062 246550	31.431 31.430 31.43 31.43 31.42 31.42 31.42 31.42 31.42	8.9195 - 5 8.7221 8.529 8.339 8.153 7.970 7.791 7.616 7.444	19800. 19742. 19685. 19627. 19569. 19512. 19454. 19397. 19339. 19281.	2.6765 +19 2.6174 2.559 2.503 2.447 2.392 2.339 2.286 2.235 2.184	1258.9 1257.0 1255. 1253. 1251. 1250. 1248. 1244. 1244.	2.1467 + 5 2.0962 2.047 1.998 1.951 1.904 1.859 1.814 1.771	5.8643 - 3 5.9967 6.133 6.272 6.415 6.561 6.712 6.866 7.024 7.187	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
250000 250500 251000 251500 252000 252500 253000 253500 254000 254500	247038 247526 248015 24803 248991 249479 249479 24967 250455 250943 251431	31.42 31.41 31.41 31.41 31.41 31.41 31.41 31.41 31.40 31.40	7.110 - 5 6.948 6.789 6.634 6.481 6.332 6.185 6.042 5.901 5.764	19224. 19166. 19108. 19051. 18936. 18878. 18820. 18763.	2.135 +19 2.086 2.038 1.992 1.946 1.901 1.857 1.814 1.772 1.731	1240. 1238. 1236. 1234. 1231. 1229. 1227. 1225. 1223.	1.686 + 5 1.646 1.606 1.567 1.528 1.491 1.454 1.418 1.383 1.383	7.353 - 3 7.524 7.700 7.880 8.065 8.255 8.450 8.650 8.650 8.856 9.067	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
255000 255500 256000 256500 257500 257500 256000 258500 259500	251919 252407 252895 253383 253871 254359 254847 255335 255822 256310	31.40 31.40 31.40 31.40 31.39 31.39 31.39 31.39	5.629 - 5 5.496 5.367 5.240 5.116 4.994 4.875 4.759 4.645	18647. 18590. 18532. 18474. 18417. 18359. 18301. 18244. 18186.	1.691 +19 1.651 1.612 1.574 1.537 1.500 1.465 1.430 1.396 1.362	1221. 1219. 1217. 1215. 1213. 1211. 1210. 1208. 1204.	1.315 + 5 1.282 1.250 1.219 1.188 1.158 1.129 1.100 1.072	9.284 - 3 9.507 9.736 9.971 1.021 - 2 1.046 1.072 1.098 1.125 1.152	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
260000 260500 261000 261500 262500 262500 263500 263500 264500 264500	256798 257286 257774 258261 258749 259237 259724 260212 260699 261187	31.39 31.38 31.38 31.38 31.38 31.38 31.38 31.38 31.38	4.423 - 5 4.316 4.211 4.109 4.008 3.909 3.800 3.695 3.592 3.492	18071. 18013. 17955. 17898. 17840. 17788. 17789. 17790. 17791. 17792.	1.329 +19 1.297 1.266 1.235 1.205 1.175 1.142 1.111 1.080 1.050	1202. 1200. 1198. 1196. 1194. 1192. 1192. 1192. 1192.	1.018 + 5 9.916 + 4 9.659 9.409 9.164 8.924 8.677 8.436 8.202 7.975	1.181 - 2 1.210 1.240 1.271 1.303 1.336 1.374 1.413 1.454 1.495	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
265000 265500 266000 266500 267500 267500 268500 268500 269500	261675 262162 262650 263137 263624 264112 264599 265087 265574 266061	31.37 31.37 31.37 31.37 31.37 31.36 31.36 31.36 31.36	3.395 - 5 3.301 3.210 3.121 3.034 2.950 2.868 2.788 2.711 2.636	17792. 17793. 17794. 17795. 17796. 17797. 17797. 17798. 17799.	1.021 +19 9.925 +18 9.650 9.383 9.123 8.870 8.624 8.386 8.153 7.927	1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192.	7.754 + 4 7.539 7.330 7.127 6.930 6.738 6.551 6.369 6.193 6.022	1.538 - 2 1.581 1.626 1.673 1.720 1.769 1.820 1.872 1.925	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964

TABLE ▼.—Concluded
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altif	lude	Accel. due to	Specific weight	Pressure scale	Number density	Particle speed	Collision frequency	Mean free	Molecular weight
H, ft	Z, ft	gravity g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	height H _P , ft	n, ft ⁻³	∇, ft sec¯'		L, ft	M
270000 270500 271500 271500 272500 272500 273500 273500 274500	273542 274055 274568 275082 275595 276108 276622 277135 277648 278162	31.35 31.34 31.34 31.34 31.34 31.34 31.34 31.33	2.100 - 5 2.040 1.982 1.925 1.871 1.817 1.766 1.715 1.667	17807. 17808. 17808. 17809. 17810. 17811. 17812. 17813. 17814.	6.317 +18 6.138 5.963 5.794 5.629 5.469 5.314 5.163 5.016 4.874	1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192.	4.799 + 4 4.662 4.530 4.401 4.276 4.155 4.037 3.922 3.810 3.702	2.485 - 2 2.557 2.632 2.709 2.788 2.870 2.954 3.040 3.129 3.220	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
275000 275500 276500 276500 277500 277500 278000 278500 279500	278675 279189 279702 280216 280729 281243 281756 282270 282784 283297	31.33 31.33 31.33 31.32 31.32 31.32 31.32 31.32 31.32 31.32	1.573 - 5 1.528 1.485 1.485 1.402 1.362 1.323 1.285 1.249	17815. 17816. 17817. 17818. 17819. 17820. 17821. 17821. 17822. 17823.	4.735 +18 4.601 4.470 4.343 4.220 4.100 3.983 3.870 3.760 3.654	1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192.	3.597 + 4 3.495 3.396 3.299 3.205 3.114 3.026 2.940 2.856 2.775	3.314 - 2 3.411 3.511 3.614 3.719 3.828 3.940 4.055 4.174 4.296	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
280000 280500 281000 281500 282500 282500 283500 283500 284500	283811 284325 284838 265352 285866 286380 286894 287408 287921 288435	31.32 31.31 31.31 31.31 31.31 31.31 31.31 31.31 31.30	1.179 - 5 1.145 1.113 1.081 1.050 1.020 9.912 - 6 9.630 9.356 9.089	17824. 17825. 17826. 17827. 17828. 17828. 17829. 17830. 17831. 17832.	3.550 +18 3.449 3.351 3.256 3.163 3.073 2.986 2.901 2.819 2.739	1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192.	2.696 + 4 2.620 2.545 2.473 2.403 2.334 2.334 2.268 2.204 2.141 2.080	4.422 - 2 4.551 4.684 4.821 4.962 5.107 5.256 5.410 5.568 5.731	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
285000 285500 286000 286500 287500 287500 288000 288500 289500	288949 289463 289977 290491 291605 291519 292033 292548 293062 293576	31.30 31.30 31.30 31.30 31.29 31.29 31.29 31.29 31.29 31.29	8.831 - 6 8.579 8.335 8.098 7.868 7.644 7.426 7.215 7.010 6.810	17833. 17834. 17834. 17835. 17836. 17837. 17838. 17839. 17840. 17841.	2.661 +18 2.585 2.512 2.441 2.371 2.304 2.238 2.175 2.113 2.053	1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192. 1192.	2.021 + 4 1.964 1.908 1.854 1.801 1.750 1.700 1.652 1.605 1.559	5.899 - 2 6.071 6.249 6.431 6.619 6.813 7.012 7.217 7.428 7.645	28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964 28.964
290000 290500 291000 291500 292500 292500 293500 293500 294500 294500	294090 294604 295119 295633 296147 296661 297176 297690 298204 298719	31.29 31.28 31.28 31.28 31.28 31.28 31.28 31.27 31.27	6.616 - 6 6.428 6.245 6.057 5.870 5.689 5.514 5.345 5.181 5.023	17841. 17842. 17843. 17876. 17924. 17971. 18018. 18066. 18113.	1.995 +18 1.938 1.883 1.826 1.770 1.715 1.663 1.612 1.563 1.515	1192. 1192. 1192. 1193. 1195. 1196. 1198. 1199. 1201.	1.515 + 4 1.472 1.430 1.388 1.347 1.308 1.269 1.232 1.196 1.161	7.869 - 2 8.099 8.336 8.595 8.868 9.150 9.439 9.737 1.004 - 1	28.964 28.964 28.964 28.964 28.963 28.963 28.963 28.963 28.962 28.962
295000 295500 296500 296500 297500 297500 298500 298500 299500	299233 299748 300262 300777 301291 301806 302321 302835 303350 303864	31.27 31.27 31.27 31.27 31.26 31.26 31.26 31.26 31.26	4.871 - 6 4.723 4.580 4.442 4.308 4.178 4.053 3.932 3.815 3.701	18208. 18255. 18302. 18350. 18397. 18445. 18492. 18539. 18587. 18634.	1.469 +18 1.425 1.382 1.380 1.300 1.261 1.223 1.187 1.151	1204. 1206. 1207. 1209. 1210. 1212. 1213. 1215. 1216. 1218.	1.127 + 4 1.094 1.063 1.032 1.002 9.734 + 3 9.454 9.184 8.922 8.668	1.068 - 1 1.102 1.136 1.171 1.208 1.245 1.283 1.323 1.363 1.405	28.961 28.961 28.961 28.960 28.960 28.959 28.959 28.958 28.958
300000	304379	31.25	3.591 - 6	18682.	1.084 +18	1219.	8.422 + 3	1-448 - 1	28.956

Altit	ude	Accel.	Specific	Pressure scale	Number	Particle	Collision		Molecular
Z, ft	H, ft	due to gravity	weight ω , lb ft ⁻² sec ⁻²		density n, ft ⁻³	speed ∇, ft sec⁻¹	frequency ν , sec ⁻¹	path ∟, ft	weight M
270000	266549	g, ff sec-2	2.563 - 5	H _P , ft	7.708 +18	1192.	5.855 + 4	2.036 - 2	28.964
270500 271000	267036 267523	31.36 31.35	2.491 2.422	17802. 17802.	7.494 7.287	1192. 1192.	5.693 5.535	2.094 2.154	28.964 28.964
271500 272000	268010 268498	31.35 31.35	2.355 2.290 2.226	17803. 17804.	7.085 6.889	1192.	5.382 5.233	2.215 2.278	28.964 28.964
272500 273000	268985 269472	31.35 31.35	2.226 2.165	17805. 17806.	6.698 6.513	1192. 1192.	5.088 4.947	2.343 2.410	28.964 28.964
273500 274000	269959 270446	31.35 31.34	2.105 2.046	17807. 17808.	6.332 6.157	1192. 1192.	4.810 4.677	2.479 2.549	28.964 28.964
274500 275000	270933 271420	31.34	1.989 1.934 - 5	17808. 17809.	5.986 5.821 +18	1192.	4.547 4.421 + 4	2.622	28.964
275500 276000	271908 272395	31.34	1.881	17810. 17811.	5.660 5.503	1192.	4.299 4.180	2.773	28.964 28.964
276500 277000	272882 273369	31.34	1.778	17812. 17813.	5.351 5.202	1192.	4.064	2.933	28.964 28.964
277500	273856	31.34 31.33 31.33	1.681	17813.	5.058	1192.	3.842 3.736	3.103 3.191	28.964 28.964
278000 278500	274342 274829	31.33	1.589	17814. 17815.	4.918 4.782	1192.	3.633	3.282 3.375	28.964
279000 279500	275316 275803	31.33 31.33	1.545 1.502	17816. 17817.	4.650 4.521	1192.	3.532 3.434	3.472	28.964 28.964
280000 280500	276290 276777	31.33 31.33	1.460 - 5 1.420	17818. 17818.	4.396 +18 4.274	1192. 1192.	3.339 + 4 3.247	3.570 - 2 3.672	28.964 28.964
281000 281500	277264 277750	31.32 31.32	1.380 1.342 1.305	17819. 17820.	4-156 4-041	1192.	3.157 3.070	3.776 3.884	28.964 28.964
282000 282500	278237 278724	31.32 31.32	1.269	17821. 17822.	3.929 3.821	1192. 1192.	2.985 2.902	3.994 4.108	28.964 28.964
283000 283500	279211 279697	31.32 31.32	1.234 1.199	17823. 17824.	3.715 3.612	1192. 1192.	2.822 2.744	4.225 4.345	28.964 28.964
284000 284500	280184 280671	31.32 31.31	1.166 1.134	17824. 17825.	3.512 3.415	1192. 1192.	2.668 2.594	4.469 4.596	28.964 28.964
285000 285500	281157 281644	31.31 31.31	1.102 - 5 1.072	17826. 17827.	3.321 +18 3.229	1192. 1192.	2.522 + 4 2.453	4.727 - 2 4.861	28.964 28.964
286000 286500	282130 282617	31.31 31.31	1.042	17828. 17829.	3.140 3.053	1192.	2.385 2.319	4.999	28.964 28.964
287000 287500	283103 283590	31.31 31.30	9.853 - 6 9.580	17829. 17830.	2.968 2.886	1192.	2.255 2.192	5.288 5.438	28.964 28.964
288000 288500	284076 284563	31.30 31.30	9.314 9.056	17831. 17832.	2.806	1192.	2.132 2.073	5.593 5.752	28.964 28.964
289000 289500	285049 285536	31.30 31.30	8.806 8.562	17833. 17834.	2.653 2.580	1192.	2.015 1.960	5.915	28.964 28.964
290000 290500	286022 286509	31.30 31.30	8.325 - 6 8.094	17835. 17835.	2.509 +18 2.439	1192. 1192.	1.906 + 4 1.853	6.257 - 2 6.434	28.964 28.964
291000 291500	286995 287481	31.30 31.29 31.29	7.870 7.652	17836. 17837.	2.372	1192. 1192.	1.802 1.752	6.617	28.964 28.964
292000 292500	287967 288454	31.29	7.440 7.234	17838. 17839.	2.243 2.181	1192. 1192.	1.703 1.656 1.611	6.999 7.198	28.964 28.964
293000 293500	288940 289426	31.29	7.034 6.839	17840. 17840.	2.120	1192. 1192.	1.566	7.403 7.613	28.964 28.964
294000 294500	289912 290399	31.29 31.29 31.28	6.650 6.466	17841. 17842.	2.005 1.949	1192. 1192.	1.523 1.481	7.829 8.052	28.964 28.964
295000 295500	290885 291371	31.28 31.28	6.287 - 6 6.106	17843. 17864.	1.895 +18	1192.	1.440 + 4	8.281 - 2 8.526	28.964 28.964
296000 296500	291857 292343	31.28 31.28	5.922 5.745	17910. 17956.	1.786	1194.	1.359	8.789 9.060	28.964 28.963
297000 297500	292829 293315	31.28 31.28	5.573 5.407	18002. 18048.	1.681	1197.	1.282	9.339	28.963 28.963
298000 298500	293801 294287	31.27 31.27	5.246	18094. 18140.	1.582	1200.	1.210	9.921 1.022 - 1	28.962 28.962
299000 299500	294773 295259	31.27	4.939 4.793	18186. 18232.	1.490	1203.	1.142	1.053	28.962
300000	295745	31.27	4.652 - 6	18278.	1.403 +18	1206.	1.079 + 4	1.118 - 1	28.961
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Altit	ude	Accel. due to gravity	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, ft	H, ft	g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec⁻'	ν, sec ⁻¹	L, ft	М
300000 301000 302000 303000 304000 305000 306000 307000 308000 309000	295745 296717 297689 298660 299632 300603 301574 302546 303517 304488	31.27 31.26 31.26 31.26 31.25 31.25 31.25 31.25 31.25	4.652 - 6 4.383 4.131 3.894 3.672 3.463 3.268 3.288 2.912 2.749	18278. 18370. 18462. 18555. 18647. 18739. 18831. 18923. 19016. 19108.	1.403 +18 1.322 1.246 1.175 1.108 1.046 9.866 +17 9.313 8.793 8.305	1206. 1209. 1212. 1215. 1218. 1221. 1224. 1227. 1230. 1233.	1.079 + 4 1.019 9.627 + 3 9.099 8.602 8.135 7.695 7.281 6.891 6.523	1.118 - 1 1.187 1.259 1.336 1.416 1.501 1.591 1.685 1.785 1.890	28.96 28.96 28.96 28.96 28.96 28.96 28.95 28.95 28.95 28.95
310000 311000 312000 313000 314000 316000 316000 317000 318000	305459 306430 307400 308371 309342 310312 311283 3112253 313223 314193	31.24 31.23 31.23 31.23 31.22 31.22 31.22 31.22 31.21	2.597 - 6 2.454 2.319 2.192 2.073 1.961 1.855 1.755 1.662 1.573	19200. 19292. 19385. 19477. 19569. 19662. 19754. 19846. 19939. 20031.	7.846 +17 7.414 7.008 6.626 6.267 5.928 5.610 5.310 5.027 4.761	1236. 1239. 1242. 1245. 1247. 1250. 1253. 1256. 1259. 1262.	6.177 + 3 5.851 5.544 5.254 4.981 4.723 4.479 4.249 4.032 3.827	2.001 - 1 2.117 2.240 2.369 2.505 2.648 2.798 2.956 3.122 3.297	28.95 28.95 28.94 28.94 28.94 28.93 28.93 28.93 28.93 28.93
320000 321000 322000 323000 324000 325000 326000 327000 328000 329000	315163 316133 317103 318073 319043 320012 320982 321951 322920 323890	31.21 31.20 31.20 31.20 31.19 31.19 31.19 31.19 31.19	1.490 - 6 1.411 1.337 1.267 1.201 1.139 1.080 1.025 9.725 - 7 9.207	20123. 20216. 20308. 20401. 20493. 20586. 20678. 20771. 20863. 21011.	4.510 +17 4.273 4.050 3.839 3.640 3.453 3.275 3.108 2.950 2.793	1265. 1267. 1270. 1273. 1276. 1279. 1282. 1284. 1287. 1292.	3.634 + 3 3.451 3.278 3.114 2.959 2.813 2.674 2.543 2.419 2.299	3.480 - 1 3.673 3.876 4.088 4.312 4.546 4.792 5.050 5.320 5.619	28.92 28.91 28.91 28.90 28.90 28.89 28.88 28.88 28.88
33000 331000 332000 333000 334000 335000 337000 336000 337000	324859 325828 326797 327766 328734 329703 330672 331640 332609 333577	31.18 31.18 31.17 31.17 31.16 31.16 31.16 31.16 31.16 31.16	8.717 - 7 8.256 7.823 7.415 7.032 6.670 6.330 6.009 5.706 5.420	21164. 21317. 21470. 21624. 21777. 21930. 22083. 22236. 22389. 22543.	2.646 +17 2.507 2.376 2.253 2.137 2.028 1.925 1.828 1.737 1.650	1296. 1301. 1306. 1310. 1315. 1319. 1324. 1328. 1333.	2.185 + 3 2.078 1.976 1.880 1.790 1.704 1.624 1.547 1.475	5.933 - 1 6.261 6.606 6.967 7.345 7.740 8.153 8.586 9.038 9.510	28.87 28.86 28.85 28.85 28.84 28.83 28.82 28.82 28.82 28.81 28.80
340000 341000 342000 343000 344000 345000 346000 347000 349000	334545 335513 336481 337449 338417 339385 340352 341320 342287 343255	31.15 31.15 31.14 31.14 31.14 31.13 31.13 31.13 31.13	5.151 - 7 4.897 4.656 4.429 4.215 4.012 3.820 3.639 3.467 3.304	22696. 22849. 23003. 23156. 23160. 23463. 23616. 23770. 23923. 24077.	1.569 +17 1.492 1.420 1.351 1.286 1.225 1.167 1.112 1.060 1.010	1342. 1346. 1351. 1355. 1360. 1364. 1368. 1373. 1377.	1.341 + 3 1.280 1.222 1.166 1.114 1.064 1.017 9.722 + 2 9.297 8.893	1.000 + 0 1.052 1.106 1.162 1.220 1.282 1.345 1.412 1.481 1.553	28.79 28.78 28.77 28.76 28.75 28.74 28.73 28.72 28.71 28.70
350000 351000 352000 353000 354000 355000 356000 357000 358000 359000	344222 345189 346157 347124 348090 349057 350024 350991 351957 352924	31.12 31.11 31.11 31.11 31.11 31.11 31.10 31.10 31.10 31.09	3.150 - 7 3.004 2.866 2.734 2.610 2.492 2.380 2.273 2.172 2.076	24231. 24384. 24538. 24691. 24845. 24999. 25153. 25306. 25460. 25614.	9.638 +16 9.195 8.776 8.378 8.001 7.643 7.303 6.980 6.674 6.382	1386. 1390. 1394. 1399. 1403. 1407. 1411. 1416. 1420.	8.509 + 2 8.144 7.796 7.466 7.152 6.852 6.567 6.296 6.037 5.791	1.629 + 0 1.707 1.788 1.873 1.962 2.054 2.149 2.249 2.352 2.459	28.69 28.68 28.67 28.66 28.64 28.63 28.62 28.61 28.60 28.58
360000 361000 362000 363000 364000 365000 366000 367000 368000	353890 354856 355823 356789 357755 358721 359687 360652 361618 362584	31.09 31.09 31.09 31.08 31.08 31.07 31.07 31.07	1.985 - 7 1.897 1.895 1.718 1.636 1.559 1.486 1.417 1.352	25768. 25938. 26244. 26549. 26855. 27160. 27466. 27771. 28077. 28383.	6.105 +16 5.838 5.557 5.291 5.042 4.807 4.585 4.376 4.178 3.992	1428. 1433. 1441. 1450. 1458. 1466. 1474. 1482. 1490.	5.556 + 2 5.330 5.103 4.887 4.683 4.490 4.306 4.133 3.968 3.811	2.571 + 0 2.688 2.825 2.966 3.113 3.265 3.423 3.587 3.756 3.932	28.57 28.56 28.54 28.53 28.52 28.50 28.49 28.48 28.46 28.45
370000 371000 372000 373000 374000 375000 376000 377000 378000 379000	363549 364514 365480 366445 367410 368375 369340 370305 371270 372234	31.06 31.06 31.05 31.05 31.05 31.05 31.04 31.04	1.234 - 7 1.179 1.127 1.078 1.032 9.882 - 8 9.466 9.071 8.697 8.341	28689. 28995. 29301. 29607. 29913. 30219. 30525. 30832. 31138. 31444.	3.816 +16 3.649 3.491 3.342 3.200 3.066 2.939 2.818 2.703 2.595	1506. 1514. 1522. 1530. 1538. 1546. 1553. 1561. 1569.	3.662 + 2 3.520 3.386 3.258 3.136 3.019 2.909 2.803 2.702 2.606	4.114 + 0 4.302 4.496 4.697 4.905 5.119 5.341 5.570 5.806 6.049	28.43 28.42 28.40 28.39 28.37 28.36 28.34 28.33 28.33 28.33

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Altit	ude	Accel.	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, ft	H, ft	gravity g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	neigni H _P , ft	n, ft ^{-s}	∇, ft sec⁻'		L, ft	М
380000 381000 382000 383000 384000 385000 386000 387000 389000	373199 374163 375128 376092 377056 378020 378984 379948 380912 381876	31.03 31.03 31.03 31.02 31.02 31.02 31.02 31.01 31.01	8.003 - 8 7.682 7.377 7.086 6.810 6.546 6.296 6.056 5.828 5.611	31751. 32057. 32364. 32670. 32977. 33284. 33591. 33897. 34204.	2.491 +16 2.393 2.299 2.210 2.125 2.044 1.967 1.894 1.823 1.757	1584. 1592. 1599. 1607. 1614. 1621. 1629. 1636. 1643.	2.514 + 2 2.426 2.342 2.262 2.185 2.112 2.041 1.974 1.909 1.847	6.301 + 0 6.560 6.827 7.103 7.386 7.678 7.979 8.289 8.608 8.936	28.28 28.27 28.25 28.24 28.22 28.21 28.19 28.17 28.16 28.14
390000 391000 392000 393000 394000 395000 396000 397000 398000	382840 383803 384767 385730 386693 387656 388620 389583 390546 391508	31.00 31.00 31.00 30.99 30.99 30.99 30.99 30.98 30.98	5.403 - 8 5.205 5.016 4.835 4.650 4.449 4.260 4.081 3.913 3.754	34818. 35125. 35433. 35740. 36138. 36749. 37360. 37972. 38583. 39195.	1.693 +16 1.632 1.573 1.518 1.461 1.398 1.340 1.284 1.232 1.183	1658. 1665. 1672. 1680. 1689. 1703. 1717. 1731. 1745. 1758.	1.788 + 2 1.731 1.676 1.624 1.572 1.517 1.466 1.416 1.370 1.325	9.273 + 0 9.620 9.976 1.034 + 1 1.075 1.122 1.172 1.222 1.274 1.327	28.13 28.11 28.10 28.08 28.05 28.05 28.03 28.02 28.00 27.98
\$00000 \$02000 \$04000 \$06000 \$10000 \$12000 \$14000 \$16000 \$18000	392471 394396 396321 398246 400170 402094 404017 405940 407863 409785	30.97 30.96 30.96 30.95 30.95 30.99 30.93 30.93 30.93	3.604 - 8 3.328 3.080 2.857 2.655 2.473 2.307 2.156 2.019 1.893	39807. 41031. 42255. 43480. 4705. 45931. 47157. 48384. 49611. 50839.	1.136 +16 1.051 9.737 +15 9.043 8.416 7.848 7.331 6.861 6.432 6.039	1772. 1799. 1825. 1851. 1877. 1902. 1928. 1952. 1977. 2001.	1.283 + 2 1.204 1.132 1.067 1.006 9.512 + 1 9.003 8.534 8.100 7.698	1.381 + 1 1.494 1.612 1.736 1.865 2.000 2.141 2.288 2.440 2.599	27.97 27.94 27.91 27.88 27.85 27.82 27.78 27.76 27.73 27.70
42000 422000 424000 426000 426000 430000 432000 434000 436000 438000	411707 413629 415550 417471 419392 421312 423232 425151 427070 428989	30.92 30.91 30.90 30.90 30.89 30.89 30.88 30.88 30.88	1.778 - 8 1.672 1.575 1.486 1.403 1.326 1.255 1.190 1.129 1.072	52067. 53295. 54524. 55754. 56984. 58214. 59445. 60676. 61908. 63140.	5.679 +15 5.348 5.043 4.761 4.502 4.261 4.038 3.831 3.638 3.458	2025. 2048. 2071. 2079. 2117. 2140. 2162. 2184. 2206. 2228.	7.325 + 1 6.978 6.655 6.354 6.072 5.809 5.562 5.331 5.113	2.764 + 1 2.935 3.113 3.296 3.487 3.684 3.887 4.097 4.315 4.539	27.67 27.64 27.61 27.58 27.56 27.53 27.50 27.48 27.45 27.43
440000 442000 444000 446000 450000 452000 454000 456000	430907 432825 434743 436660 438577 440494 442410 444326 446241 448156	30.86 30.85 30.85 30.84 30.83 30.83 30.82 30.82 30.81	1.019 - 8 9.693 - 9 9.231 8.799 8.394 8.015 7.658 7.324 7.009 6.712	64373. 65606. 66839. 68073. 69308. 70543. 71778. 73014. 74250. 75487.	3.291 +15 3.134 2.988 2.851 2.723 2.602 2.489 2.382 2.282 2.188	2249. 2270. 2291. 2312. 2353. 2374. 2394. 2414. 2433.	4.716 + 1 4.534 4.362 4.200 4.047 3.902 3.764 3.633 3.509 3.392	4.770 + 1 5.008 5.253 5.505 5.765 6.032 6.306 6.588 6.878 7.175	27.41 27.38 27.36 27.34 27.31 27.29 27.27 27.27 27.25 27.23
460000 462000 464000 466000 470000 472000 474000 474000 478000	450071 451985 453899 455813 457727 459639 461552 463464 465376 467288	30.80 30.79 30.79 30.78 30.77 30.77 30.77 30.75	6.433 - 9 6.169 5.920 5.684 5.462 5.251 5.051 4.862 4.682	76724. 77962. 79200. 80439. 81678. 82918. 84158. 85639. 87881.	2.098 +15 2.014 1.934 1.859 1.788 1.720 1.656 1.595 1.595 1.483	2453. 2473. 2492. 2511. 2530. 2549. 2588. 2586. 2605. 2623.	3.279 + 1 3.173 3.071 2.974 2.882 2.794 2.709 2.529 2.552 2.478	7.480 + 1 7.793 8.114 8.442 8.779 9.124 9.477 9.838 1.021 + 2 1.059	27.19 27.17 27.15 27.13 27.12 27.10 27.08 27.06 27.05 27.03
480000 484000 484000 486000 490000 492000 494000 494000 498000	469199 471110 473020 474930 476840 478749 480659 482567 484476 486383	30.74 30.74 30.73 30.73 30.72 30.71 30.71 30.70 30.70 30.69	4.349 - 9 4.195 4.048 3.908 3.775 3.647 3.526 3.420 3.319 3.222	89122. 90365. 91607. 92851. 94094. 95339. 96583. 97541. 98480. 99419.	1.431 +15 1.381 1.334 1.288 1.245 1.204 1.165 1.131 1.099 1.067	2641. 2659. 2677. 2695. 2713. 2731. 2748. 2762. 2775. 2787.	2.407 + 1 2.340 2.275 2.213 2.153 2.096 2.040 1.990 1.942 1.895	1.097 + 2 1.137 1.177 1.218 1.260 1.303 1.347 1.388 1.429 1.471	27.01 27.00 26.98 26.97 26.95 26.93 26.92 26.90 26.89 26.87
500000 502000 504000 506000 510000 512000 514000 516000 518000	488291 490198 492105 494012 495918 497824 499729 501634 503539 505443	30.68 30.68 30.67 30.67 30.66 30.66 30.65 30.64 30.64	3.129 - 9 3.039 2.952 2.869 2.789 2.711 2.637 2.565 2.496 2.429	100358. 101298. 102238. 103178. 104119. 105060. 106002. 106943. 107886. 108828.	1.037 +15 1.008 9.801 +14 9.532 9.273 9.022 8.781 8.549 8.324 8.108	2800. 2813. 2826. 2839. 2851. 2864. 2876. 2889. 2901.	1.850 + 1 1.807 1.765 1.724 1.684 1.646 1.609 1.573 1.539 1.505	1.513 + 2 1.557 1.601 1.647 1.693 1.740 1.787 1.836 1.886 1.936	26.86 26.84 26.83 26.81 26.78 26.76 26.75 26.75 26.73

Altitude	Accel. due to Specific weight gravity g, ft sec ⁻² w, lb ft ⁻² sec ⁻⁶	Pressure scale height	Number density n, ft ⁻³	Particle speed V, ft sec ⁻¹	Collision frequency ν , sec ⁻¹	Mean free path L, ft	Molecular weight M
Z, ft H, ft 520000 507347 522000 509251 524000 511154 526000 513057 528000 514960 530000 516862 532000 518764 534000 520666	g, ft sec-2 W, 1011 Sec 30.63 2.364 - 9 30.62 2.302 30.62 2.187 30.60 2.187 30.60 2.087 30.59 2.040 30.59 1.993	H _P , ft 109771. 110714. 111658. 112438. 113074. 113711. 114348. 114985.	7.899 +14 7.697 7.502 7.324 7.160 7.002 6.847 6.697	2926. 2938. 2950. 2960. 2969. 2977. 2985.	1.472 + 1 1.441 1.410 1.381 1.354 1.328 1.302	1.987 + 2 2.039 2.092 2.143 2.192 2.242 2.292 2.344	26.70 26.68 26.67 26.65 26.63 26.62 26.60 26.58
536000 522567 538000 524468 540000 526268 542000 532067 546000 532067 548000 533966 550000 535865 552000 537764	30.58 1.948 30.58 1.904 30.57 1.862 - 9 30.56 1.780 30.55 1.741 30.55 1.703 30.54 1.666 30.54 1.629	115623. 116260. 116898. 117536. 118175. 118813. 119452. 120091. 120730.	6.551 6.409 6.270 +14 6.136 6.005 5.877 5.753 5.632 5.514 5.399	3001. 3009. 3017. 3025. 3032. 3040. 3048. 3056. 3064. 3072.	1.252 1.228 1.205 + 1 1.182 1.160 1.138 1.117 1.097 1.097 1.076	2.396 2.449 2.503 + 2 2.558 2.614 2.671 2.728 2.728 2.787 2.847 2.907	26.57 26.55 26.53 26.52 26.50 26.48 26.47 26.45 26.44
554000 539662 556000 543556 560000 545353 562000 5457250 564000 549146 566000 551042 568000 552937 570000 554833 572000 556727 574000 558622	30.52 1.560 1.527 30.51 1.497 - 9 1.467 30.50 1.410 30.49 1.383 1.356 30.48 1.330 30.47 1.304	122010. 122626. 123081. 123536. 123991. 124447. 124902. 125358. 125814. 126271. 126271.	5.287 5.169 5.071 +14 4.975 4.882 4.791 4.701 4.614 4.529 4.445	3080. 3087. 3092. 3098. 3103. 3109. 3114. 3120. 3125. 3136.	1.037 1.017 9.991 + 0 9.820 9.652 9.488 9.328 9.170 9.016 8.865 8.717	2.969 3.037 3.095 + 2 3.155 3.215 3.276 3.339 3.402 3.466 3.531 3.597	26.41 26.45 26.43 26.41 26.39 26.37 26.35 26.34 26.32 26.30 26.28
576000 560516 578000 562410 580000 564303 582000 566196 584000 569981 588000 571873 590000 573765 592000 575556 594000 577547 596000 579437	30.47 1.279 1.254 30.46 1.254 9 1.207 30.44 1.184 30.44 1.162 30.43 1.119 30.42 1.077 30.41 1.057 30.41 1.057 30.40 1.038	127183. 127640. 128097. 128554. 129011. 129468. 129926. 130383. 130841. 131299. 131757.	4.284 4.206 +14 4.129 4.055 3.981 3.910 3.840 3.771 3.704 3.639 3.575	3141. 3146. 3152. 3157. 3162. 3168. 3178. 3183. 3189. 3194.	8.573 8.431 + 0 8.291 8.155 8.022 7.891 7.762 7.637 7.513 7.392 7.274	3.664 3.732 + 2 3.801 3.871 3.942 4.014 4.088 4.162 4.237 4.313 4.391	26.26 26.24 26.23 26.21 26.19 26.17 26.15 26.13 26.12 26.10 26.08
598000 581328 600000 583217 602000 585107 604000 5864996 606000 5990773 610000 592661 612000 594549 614000 596437 616000 598324 618000 600210	30.40 1.018 - 9 30.39 9.997 -10 30.39 9.814 30.38 9.635 30.38 9.635 30.37 9.288 30.37 9.288 30.37 9.120 30.36 8.955 30.35 8.794 30.35 8.637	132216. 132674. 133133. 133592. 134050. 134510. 134969. 135428. 135888. 136348.	3.512 +14 3.450 3.390 3.331 3.273 3.217 3.161 3.107 3.054 3.002	3199. 3204. 3210. 3215. 3220. 3225. 3231. 3236. 3241. 3246.	7.158 + 0 7.044 6.932 6.823 6.715 6.610 6.506 6.405 6.306 6.208	4.470 + 2 4.549 4.630 4.712 4.775 4.880 4.965 5.052 5.140 5.229	26.06 26.04 26.03 26.01 25.99 25.97 25.95 25.94 25.92 25.90
620000 602097 622000 603983 624000 605868 626000 607753 628000 611523 632000 611523 632000 615291 636000 617175 638000 619058	30.34 8.483 -10 30.34 8.332 30.33 8.186 30.33 7.914 30.31 7.781 30.31 7.652 30.30 7.524 30.30 7.399 30.29 7.277	136808. 137268. 137688. 138024. 138361. 138367. 139034. 139370. 139707. 140044.	2.951 +14 2.901 2.853 2.807 2.763 2.719 2.676 2.634 2.592 2.551	3251. 3256. 3261. 3265. 3268. 3272. 3276. 3279. 3283. 3287.	6.112 + 0 6.018 5.927 5.839 5.753 5.668 5.584 5.502 5.422 5.343	5.319 + 2 5.411 5.502 5.591 5.682 5.773 5.886 5.960 6.055 6.152	25.88 25.86 25.85 25.83 25.81 25.79 25.77 25.76 25.74 25.72
640000 620941 642000 622823 644000 6228705 644000 626587 648000 628468 650000 630349 652000 632230 654000 635991 658000 637870	30.29 7.156 -10 30.28 7.038 30.27 6.809 30.26 6.697 30.26 6.481 30.25 6.481 30.25 6.375 30.24 6.170	140381. 140718. 141056. 141393. 141731. 142068. 142406. 142744. 143082. 143420.	2.511 +14 2.472 2.434 2.396 2.359 2.322 2.286 2.251 2.217 2.183	3290. 3294. 3298. 3301. 3305. 3309. 3312. 3316. 3319. 3323.	5.265 + 0 5.188 5.113 5.039 4.966 4.895 4.825 4.756 4.688 4.621	6.250 + 2 6.349 6.449 6.551 6.654 6.759 6.865 6.972 7.081 7.191	25.70 25.68 25.67 25.65 25.63 25.61 25.60 25.58 25.56 25.56
660000 639750 662000 641629 664000 645507 666000 645385 668000 647263 670000 649141 672000 651018 674000 652895 676000 654772 678000 656648	30.23 6.071 -10 30.22 5.973 30.22 5.877 30.21 5.782 30.21 5.690 30.20 5.599 30.20 5.510 30.19 5.422 30.18 5.336 30.18 5.252	143758. 144096. 144435. 144773. 145112. 145451. 145790. 146129. 146468. 146807.	2.149 +14 2.116 2.084 2.053 2.022 1.991 1.961 1.932 1.903 1.874	3327. 3330. 3334. 3337. 3341. 3345. 3348. 3352. 3355. 3359.	4.555 + 0 4.491 4.427 4.365 4.303 4.243 4.183 4.125 4.067 4.011	7.303 + 2 7.416 7.530 7.646 7.764 7.883 8.004 8.126 8.249 8.375	25.52 25.51 25.49 25.47 25.45 25.44 25.40 25.38 25.36

Altit	ude	Accel. due to gravity	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	path	Molecular weight
Z, ft	H, ft	g, ft sec ⁻²	ω, ib ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec ⁻¹	ν, sec ⁻ '	L, ft	M
680000 682000 684000 686000 690000 692000 692000 694000 698000	658524 660399 662274 664149 666023 667897 669771 671645 673518 675390	30.17 30.17 30.16 50.16 30.15 30.15 30.15 30.13 30.13	5.169 -10 5.087 5.007 4.929 4.852 4.776 4.702 4.628 4.557 4.486	147147. 147826. 147826. 148166. 148506. 1498846. 149186. 149526. 149866.	1.846 +14 1.819 1.792 1.765 1.739 1.713 1.688 1.664 1.639 1.615	3362. 3366. 3370. 3373. 3377. 3380. 3384. 3387. 3391.	3.955 + 0 3.900 3.847 3.794 3.741 3.690 3.640 3.590 3.541 3.493	8.501 + 2 8.630 8.760 8.892 9.025 9.160 9.297 9.435 9.575 9.717	25.35 25.33 25.31 25.29 25.28 25.26 25.24 25.22 25.21 25.19
70000 70200 704000 708000 718000 712000 714000 718000	677263 679135 681006 682878 684749 68619 688489 690359 692229 694098	30.12 30.11 30.11 30.10 30.10 30.09 30.08 30.08 30.07 30.07	4.417 -10 4.349 4.282 4.216 4.152 4.088 4.026 3.965 3.905 3.845	150547. 150888. 151229. 151570. 151911. 152252. 152593. 152935. 153276. 153618.	1.592 +14 1.569 1.546 1.523 1.501 1.480 1.459 1.438 1.417	3398. 3401. 3405. 3409. 3412. 3416. 3419. 3423. 3426. 3430.	3.446 + 0 3.399 3.353 3.308 3.264 3.220 3.177 3.135 3.093 3.052	9.861 + 2 1.001 + 3 1.015 1.035 1.045 1.061 1.076 1.092 1.108	25.17 25.15 25.13 25.12 25.10 25.08 25.06 25.05 25.03 25.01
72000 722000 724000 724000 726000 730000 732000 734000 738000	695967 697836 699704 701572 703439 705306 707173 709040 710906 712771	30.06 30.06 30.05 30.05 30.04 30.03 30.03 30.02 30.02 30.02	3.787 -10 3.730 3.674 3.619 3.565 3.511 3.459 3.407 3.357 3.307	153960. 154302. 154644. 154986. 155328. 155670. 156013. 156356. 156698.	1.377 +14 1.357 1.358 1.319 1.301 1.282 1.264 1.247 1.229 1.212	3433. 3437. 3440. 3444. 3447. 3450. 3454. 3457. 3461. 3464.	3.012 + 0 2.972 2.973 2.894 2.857 2.819 2.782 2.746 2.711 2.675	1.140 + 3 1.156 1.173 1.190 1.207 1.224 1.224 1.259 1.277	24.99 24.98 24.94 24.92 24.90 24.89 24.87 24.85 24.83
7%0000 7%2000 7%4000 7%6000 7%6000 750000 752000 754000 756000 758000	714637 716502 718367 720231 722095 723959 725822 727685 729548 731410	30.01 30.00 30.00 29.99 29.98 29.98 29.97 29.97 29.97	3.258 -10 3.210 3.163 3.116 3.071 3.026 2.981 2.988 2.896 2.855	157384. 157727. 158070. 158414. 158757. 159101. 159444. 159788. 160088.	1.195 +14 1.179 1.162 1.146 1.131 1.115 1.100 1.085 1.070 1.056	3468. 3471. 3475. 3478. 3482. 3485. 3486. 3492. 3495. 3498.	2.641 + 0 2.607 2.573 2.540 2.508 2.476 2.444 2.413 2.383 2.353	1.313 + 3 1.332 1.350 1.359 1.388 1.408 1.427 1.447 1.467	24.82 24.80 24.76 24.75 24.75 24.73 24.71 24.69 24.68 24.66
760000 762000 764000 764000 768000 770000 772000 774000 776000 778000	733272 735134 736995 738856 740716 742577 744436 746296 748155 750014	29.95 29.95 29.94 29.93 29.93 29.92 29.92 29.91 29.91 29.90	2.815 -10 2.775 2.775 2.6698 2.660 2.623 2.586 2.550 2.514 2.480	160650. 160932. 161213. 161495. 161776. 162058. 162340. 162622. 162904. 163186.	1.042 +14 1.028 1.015 1.001 9.882 +13 9.752 9.625 9.499 9.375 9.253	3500. 3503. 3506. 3509. 3511. 3514. 3517. 3520. 3522.	2.324 + 0 2.295 2.266 2.238 2.211 2.183 2.157 2.130 2.104 2.078	1.506 + 3 1.527 1.547 1.568 1.588 1.609 1.631 1.652 1.674 1.696	24.64 24.62 24.60 24.59 24.57 24.55 24.53 24.52 24.50 24.48
780000 782000 784000 786000 788000 790000 792000 794000 796000 798000	751873 753731 755589 757446 759303 761160 763017 764873 766728 768584	29.90 29.89 29.88 29.88 29.87 29.87 29.86 29.86 29.85 29.85	2.445 -10 2.411 2.378 2.345 2.313 2.281 2.250 2.219 2.188 2.158	163468. 163750. 164033. 164315. 164598. 164881. 165163. 165446. 165729.	9.133 +13 9.015 8.898 8.783 8.670 8.559 8.449 8.340 8.234 8.129	3528. 3530. 3533. 3536. 3539. 3541. 3544. 3547. 3549.	2.053 + 0 2.028 2.003 1.979 1.955 1.931 1.908 1.885 1.862 1.840	1.719 + 3 1.741 1.764 1.787 1.810 1.834 1.858 1.882 1.906 1.931	24.45 24.45 24.43 24.41 24.39 24.38 24.36 24.36 24.32 24.30
800000 805000 810000 815000 825000 835000 840000 845000	770439 775075 779709 784341 788971 793599 798224 802848 807469 812088	29.84 29.83 29.81 29.80 29.78 29.77 29.76 29.74 29.73 29.72	2.129 -10 2.057 1.988 1.922 1.858 1.796 1.737 1.680 1.625	166295. 167004. 167713. 168422. 169132. 169843. 170555. 171266. 171979.	8.025 +13 7.772 7.529 7.294 7.068 6.849 6.638 6.435 6.239 6.049	3555. 3561. 3568. 3575. 3582. 3588. 3595. 3602. 3608.	1.818 + 0 1.764 1.712 1.661 1.613 1.566 1.521 1.477 1.434 1.393	1.956 + 3 2.019 2.085 2.152 2.221 2.292 2.364 2.439 2.516 2.595	24.29 24.24 24.20 24.15 24.11 24.07 24.02 23.98 23.93 23.89
850000 855000 860000 865000 870000 875000 885000 885000 895000	816705 821320 825933 8305143 835152 839758 844362 848964 853564	29.70 29.69 29.68 29.66 29.65 29.63 29.62 29.61 29.59 29.58	1.521 -10 1.472 1.424 1.379 1.335 1.292 1.251 1.212 1.173 1.137	173406. 174120. 174835. 175551. 176267. 176984. 177701. 178419. 179138. 179857.	5.866 +13 5.690 5.519 5.355 5.195 5.042 4.893 4.750 4.611 4.477	3622. 3628. 3635. 3641. 3648. 3655. 3661. 3668. 3674.	1.354 + 0 1.315 1.278 1.242 1.208 1.174 1.111 1.110 1.079 1.050	2.676 + 3 2.759 2.8%4 2.931 3.021 3.113 3.208 3.305 3.404 3.506	23.85 23.80 23.76 23.67 23.67 23.62 23.58 23.54 23.49

	tude	Accel. due to gravity	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	path	Molecular weight
Z, ft	H, ft	g, ft sec-2	ω , lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec⁻'	ν, sec ⁻¹	L, ft	М
90000 905000 915000 915000 925000 935000 935000 940000 945000	862758 867352 871943 876533 881120 885705 890289 894870 899449 904025	29.57 29.55 29.54 29.53 29.51 29.50 29.48 29.47 29.46 29.44	1.101 -10 1.067 1.034 1.002 9.710 -11 9.412 9.125 8.847 8.579 8.320	180577. 181297. 182018. 182740. 183462. 184185. 184908. 185633. 186357.	4.347 +13 4.222 4.100 3.983 3.870 3.760 3.654 3.5551 3.452 3.355	3687. 3694. 3700. 3707. 3713. 3720. 3726. 3732. 3739. 3745.	1.021 + 0 9.935 - 1 9.667 9.407 9.155 8.911 8.674 8.445 8.222 8.007	3.611 + 3 3.718 3.828 3.940 4.056 4.174 4.296 4.420 4.547 4.678	23.40 23.36 23.31 23.27 23.23 23.18 23.14 23.09 23.05 23.00
950000 955000 960000 975000 975000 980000 985000 995000	908600 913173 917743 922312 926878 931442 936004 940564 945122 949678	29.43 29.42 29.40 29.39 29.38 29.36 29.35 29.35 29.31	8.070 -11 7.828 7.594 7.368 7.150 6.938 6.734 6.537 6.350 6.169	187808. 188535. 189262. 189990. 190718. 191447. 192176. 192890. 193508. 194127.	3.262 +13 3.172 3.085 3.000 2.918 2.839 2.762 2.687 2.617 2.548	3752- 3758- 3764- 3771- 3777- 3784- 3790- 3796- 3801- 3806-	7.798 - 1 7.595 7.398 7.207 7.022 6.8%3 6.668 6.500 6.337 6.179	4.811 + 3 4.948 5.088 5.232 5.379 5.529 5.683 5.840 5.998 6.160	22.96 22.92 22.87 22.83 22.78 22.74 22.65 22.65 22.61
1000000 1005000 1010000 1015000 1025000 1025000 1035000 1035000 1045000	954232 958784 963333 967881 972426 976970 981511 986050 990588 995123	29.30 29.28 29.27 29.26 29.24 29.23 29.22 29.20 29.19 29.18	5.993 -11 5.823 5.658 5.498 5.343 5.193 5.048 4.907 4.771	194746. 195366. 195986. 196607. 197229. 197850. 198473. 199096. 199719. 200343.	2.481 +13 2.417 2.354 2.293 2.234 2.176 2.121 2.067 2.014 1.963	3812. 3817. 3827. 3832. 3837. 3843. 3843. 3853. 3858.	6.026 - 1 5.877 5.732 5.591 5.454 5.321 5.192 5.066 4.944 4.825	6.325 + 3 6.495 6.668 6.845 7.026 7.212 7.401 7.595 7.793 7.996	22.52 22.48 22.43 22.39 22.30 22.26 22.21 22.17 22.13
1050000 1055000 1065000 1065000 1075000 1075000 1085000 1095000	999656 1004187 1008715 1013242 1017767 1022290 1026810 1031329 1035845 1040360	29.16 29.15 29.14 29.12 29.11 29.10 29.08 29.07 29.06 29.04	4.510 -11 4.386 4.266 4.149 4.035 3.925 3.819 3.715 3.615 3.518	200967. 201592. 202218. 202844. 203470. 204097. 204724. 205352. 205981. 206610.	1.913 +13 1.865 1.818 1.773 1.728 1.685 1.644 1.603 1.564	3863. 3868. 3873. 3879. 3884. 3889. 3899. 3909.	4.709 - 1 4.596 4.487 4.380 4.277 4.176 4.078 3.982 3.889 3.798	8.204 + 3 8.416 8.633 8.854 9.081 9.312 9.549 9.791 1.004 + 4	22.08 22.04 22.00 21.95 21.91 21.87 21.82 21.78 21.78
1100000 1105000 1110000 1115000 1125000 1130000 1135000 1135000 1145000	1044872 1049382 1053891 1058397 1062901 1067403 1071903 1076401 1080897 1085391	29.03 29.02 29.00 28.99 28.98 28.95 28.95 28.95 28.92 28.91	3.423 -11 3.332 3.243 3.157 3.073 2.992 2.913 2.836 2.762 2.689	207239. 207869. 208500. 209131. 209762. 210374. 211027. 211660. 212294. 212928.	1.488 +13 1.452 1.416 1.382 1.349 1.316 1.284 1.254 1.224	3914. 3919. 3924. 3929. 3934. 3944. 3949. 3954.	3.710 - 1 3.625 3.5%1 3.460 3.380 3.303 3.228 3.155 3.083 3.014	1.055 + 4 1.081 1.108 1.136 1.164 1.193 1.222 1.252 1.282 1.314	21.65 21.61 21.57 21.52 21.48 21.44 21.40 21.36 21.31
1150000 1155000 1160000 1165000 1175000 1175000 1185000 1195000	1089883 1094373 1098861 1103346 1107830 1112312 1116792 1121269 1125745 1130218	28.90 28.88 28.87 28.86 28.85 28.83 28.82 28.81 28.79 28.78	2.619 -11 2.551 2.485 2.421 2.358 2.298 2.239 2.182 2.126 2.072	213562. 214197. 214833. 215469. 216106. 216743. 217381. 218019. 218658. 219297.	1.166 +13 1.139 1.112 1.086 1.060 1.036 1.012 9.881 +12 9.652 9.430	3964. 3969. 3974. 3979. 3984. 3989. 3994. 4004. 4009.	2.946 - 1 2.880 2.816 2.753 2.692 2.632 2.574 2.518 2.462 2.408	1.346 + 4 1.378 1.411 1.445 1.480 1.516 1.552 1.588 1.626 1.665	21.23 21.19 21.15 21.10 21.06 21.02 20.98 20.94 20.90 20.86
1200000 1205000 1210000 1215000 1225000 1225000 1235000 1235000 1240000 1245000	1134690 1139159 1143627 1148092 1152556 1157017 1161476 1165934 1170389 1174842	28.77 28.75 28.74 28.73 28.71 28.70 28.69 28.68 28.66 28.65	2.019 -11 1.968 1.919 1.871 1.824 1.778 1.734 1.691 1.649	219936. 220577. 221217. 221859. 222500. 223143. 223786. 224429. 225073. 225717.	9.213 +12 9.001 8.795 8.595 8.400 8.209 8.024 7.883 7.667	4014. 4019. 4024. 4029. 4038. 4043. 4048. 4053. 4058.	2.356 - 1 2.305 2.255 2.206 2.159 2.112 2.067 2.023 1.980	1.704 + 4 1.744 1.785 1.826 1.869 1.912 1.956 2.001 2.047 2.094	20.82 20.78 20.74 20.69 20.65 20.61 20.57 20.53 20.50 20.46
1250000 1255000 1260000 1265000 1270000 1275000 1285000 1295000 1295000	1179294 1183743 1188190 1192635 1197079 1201520 1205959 1210396 1214832 1219265	28.64 28.62 28.61 28.60 28.58 28.57 28.56 28.55 28.53 28.53	1.568 -11 1.530 1.492 1.456 1.420 1.386 1.352 1.319 1.287	226362. 227007. 227653. 228300. 228946. 229594. 230242. 230890. 231539. 232189.	7.327 +12 7.164 7.005 6.850 6.699 6.551 6.407 6.267 6.130 5.996	4063. 4068. 4077. 4082. 4087. 4092. 4097. 4102.	1.897 - 1 1.857 1.818 1.779 1.742 1.706 1.670 1.636 1.602	2.142 + 4 2.191 2.241 2.291 2.343 2.396 2.450 2.505 2.561 2.618	20.42 20.38 20.34 20.30 20.26 20.22 20.18 20.15 20.11 20.07

Altif	lude	Accel. due to	Specific	Pressure scale	Number	Particle	Collision		Molecular
Z, ft	H, ft		weight ω, lb ft ⁻² sec ⁻²	height H _P , ft	density n, ft ⁻³	speed ∇, ft sec ⁻¹	frequency ν , sec ⁻¹	path L, ft	weight M
130000 130500 131000 131000 132000 1325000 1335000 1345000 1345000	1223696 1228125 1232552 1236978 1241401 1245822 1250241 1254658 1259074 1263487	28.49 28.48 28.47 28.46 28.44 28.43 28.42 28.42 28.40 28.39	1.226 -11 1.197 1.168 1.141 1.114 1.088 1.063 1.038 1.015 9.912 -12	232839. 233489. 234140. 234730. 235266. 235803. 236340. 236878. 237415.	5.866 +12 5.739 5.615 5.495 5.380 5.267 5.17 5.049 4.944 4.841	4111. 4116. 4121. 4125. 4127. 4133. 4136. 4140. 4144.	1.537 - 1 1.505 1.474 1.444 1.415 1.387 1.359 1.332 1.305 1.279	2.676 + 4 2.735 2.795 2.856 2.917 2.980 3.044 3.109 3.175 3.242	20.03 19.99 19.96 19.92 19.88 19.85 19.81 19.77 19.74
135000 1355000 1360000 1365000 1375000 1375000 1385000 1385000 1395000	1267898 1272307 1276715 1281120 1285523 1289925 1294324 1298721 1303117 1307510	28.38 28.37 28.35 28.34 28.33 28.32 28.30 28.29 28.28 28.26	9.68% -12 9.462 9.245 9.03% 8.828 8.628 8.628 8.432 8.241 8.055 7.873	238492. 239032. 239571. 240111. 240651. 241192. 241733. 242275. 242817. 243359.	4.741 +12 4.642 4.546 4.453 4.361 4.271 4.184 4.098 4.015 3.933	\$152. \$155. \$159. \$163. \$167. \$170. \$174. \$178. \$181. \$181.	1.254 - 1 1.229 1.205 1.181 1.158 1.135 1.135 1.091 1.070	3.311 + 4 3.381 3.452 3.525 3.599 3.675 3.751 3.830 3.910 3.991	19.66 19.63 19.59 19.56 19.52 19.49 19.45 19.45 19.42 19.38
1400000 1405000 1410000 1415000 1425000 1430000 1435000 1440000	1311902 1316291 1320679 1325064 1329448 1333829 1338209 1342586 1346962 1351336	28.25 28.24 28.23 28.21 28.20 28.19 28.16 28.15 28.14	7.696 -12 7.523 7.355 7.190 7.030 6.874 6.721 6.572 6.427 6.285	243902. 244445. 244989. 245533. 246078. 246623. 2477168. 247714. 248260. 248806.	3.853 +12 3.775 3.698 3.623 3.550 3.479 3.409 3.341 3.274 3.208	4189. 4193. 4196. 4200. 4204. 4207. 4211. 4215. 4219.	1.028 - 1 1.008 9.887 - 2 9.696 9.509 9.326 9.146 8.971 8.799 8.631	4.074 + 4 4.158 4.244 4.332 4.421 4.512 4.604 4.698 4.794 4.892	19.31 19.28 19.25 19.21 19.18 19.15 19.12 19.08 19.05 19.02
1450000 1455000 1460000 1465000 1475000 1475000 1485000 1495000 1495000	1355708 1360077 1364445 1368811 1373175 1377537 1381897 1386255 1390611 1394965	28.13 28.11 28.10 28.09 28.07 28.06 28.05 28.04 28.02 28.01	6.146 -12 6.011 5.879 5.751 5.625 5.503 5.383 5.266 5.152 5.041	249353. 249901. 250449. 250997. 251545. 252095. 252644. 253194. 253744.	3.144 +12 3.082 3.021 2.961 2.902 2.845 2.789 2.734 2.680 2.627	4226. 4230. 4233. 4237. 4241. 4244. 4248. 4252. 4255. 4259.	8.466 - 2 8.305 8.147 7.992 7.841 7.693 7.547 7.405 7.266 7.130	4.992 + 4 5.093 5.196 5.301 5.408 5.517 5.628 5.741 5.857 5.974	18.99 18.95 18.92 18.89 18.86 18.83 18.80 18.77 18.77
1500000 1505000 1510000 1515000 1520000 1525000 1535000 1540000 1545000	1399317 1403668 1408016 1412362 1416707 1421049 1425390 1425390 1425390 1434065	28.00 27.99 27.97 27.96 27.95 27.94 27.92 27.91 27.90 27.89	4.932 -12 4.826 4.722 4.621 4.522 4.425 4.331 4.239 4.149	254846. 255398. 255950. 256502. 257055. 257608. 258162. 258716. 259270. 259825.	2.576 +12 2.526 2.476 2.428 2.381 2.335 2.290 2.245 2.202 2.160	4263. 4266. 4270. 4277. 4281. 4285. 4288. 4292. 4295.	6.996 - 2 6.865 6.737 6.612 6.489 6.368 6.250 6.134 6.021 5.910	6.093 + 4 6.214 6.338 6.464 6.592 6.723 6.855 6.990 7.128 7.268	18.68 18.65 18.62 18.59 18.56 18.53 18.51 18.48 18.48
1550000 1555000 1560000 1565000 1575000 1575000 1580000 1585000 1595000	1442733 1447063 1451392 1455719 1450044 1464367 1466689 1473008 1477325 1481641	27.87 27.86 27.85 27.85 27.82 27.81 27.80 27.79 27.79 27.78	3.975 -12 3.892 3.810 3.730 3.652 3.575 3.501 3.428 3.356 3.287	260381. 260936. 261493. 262049. 262606. 263164. 263722. 264280. 264839. 265398.	2.118 +12 2.077 2.037 1.999 1.960 1.923 1.886 1.850 1.815	\$299. \$303. \$306. \$310. \$314. \$317. \$321. \$324. \$328. \$352.	5.801 - 2 5.695 5.590 5.488 5.387 5.289 5.193 5.098 5.006 4.915	7.411 + 4 7.556 7.703 7.854 8.007 8.162 8.321 8.482 8.646 8.813	18.40 18.37 18.34 18.31 18.29 18.26 18.24 18.21 18.18
1600000 1605000 1610000 1615000 1620000 1625000 1630000 1635000 1640000 1645000	1485954 1490266 1494575 1498883 1503189 1507493 1511795 1516095 1520393 1524689	27.75 27.74 27.73 27.71 27.70 27.69 27.68 27.66 27.65 27.65	3.219 -12 3.152 3.087 3.024 2.961 2.901 2.841 2.783 2.727 2.673	265957. 266517. 267077. 267638. 268199. 268761. 269323. 269886. 270449.	1.747 +12 1.714 1.682 1.650 1.619 1.589 1.559 1.530 1.501	4335. 4339. 4342. 4346. 4350. 4353. 4357. 4360. 4364. 4366.	4.826 - 2 4.739 4.653 4.570 4.487 4.407 4.328 4.250 4.174	8.983 + 4 9.156 9.332 9.511 9.693 9.878 1.007 + 5 1.026 1.045	18.13 18.11 18.08 18.06 18.04 18.01 17.99 17.96 17.94 17.92
1650000 1655000 1660000 1665000 1675000 1675000 1685000 1685000 1695000	1528983 1533276 1537566 1541855 1546142 1550426 1554709 1558790 1563269 1567546	27.63 27.61 27.60 27.59 27.58 27.57 27.55 27.55 27.55 27.53 27.53	2.620 -12 2.568 2.517 2.468 2.419 2.372 2.325 2.280 2.235 2.192	271282. 271692. 272103. 272514. 272926. 273337. 273749. 274162. 274574. 274987.	1.448 +12 1.421 1.396 1.371 1.346 1.322 1.298 1.275 1.252	4369. 4371. 4373. 4376. 4378. 4380. 4383. 4385. 4387. 4390.	4.029 - 2 3.958 3.889 3.821 3.754 3.689 3.624 3.561 3.499	1.084 + 5 1.104 1.124 1.145 1.166 1.187 1.209 1.231 1.254 1.277	17.90 17.87 17.85 17.83 17.81 17.78 17.76 17.74 17.72 17.70

Altif	ude	Accel. due to	Specific weight	Pressure scale height	Number density	Particle speed	Collision frequency	Mean free path	Molecular weight
Z, ft	H, ft	g, ft sec ⁻²	ω , lb ft ⁻² sec ⁻²	H _P , ft	n, ft ⁻³	∇, ft sec¯'	u, sec ⁻¹	∟, ft	M
1700000 1705000 1710000 1715000 1720000 1725000 1735000 1745000 1745000	1571822 1576095 1580367 1584636 1588904 1593170 1597434 1601696 1605956 1610214	27.50 27.49 27.48 27.47 27.46 27.44 27.44 27.42 27.43	2.149 -12 2.107 2.066 2.026 1.987 1.949 1.911 1.874 1.838 1.803	275400. 275814. 276227. 276641. 277056. 277470. 277885. 278300. 278715.	1.207 +12 1.186 1.165 1.144 1.124 1.103 1.084 1.065 1.046 1.027	4392. 4394. 4397. 4399. 4401. 4404. 4406. 4408. 4410.	3.379 - 2 3.320 3.262 3.262 3.150 3.096 3.042 2.990 2.938 2.888	1.300 + 5 1.324 1.348 1.372 1.397 1.422 1.448 1.474 1.501 1.528	17.68 17.66 17.64 17.62 17.60 17.58 17.56 17.54 17.52 17.50
1750000 1755000 1760000 1760000 1775000 1775000 1780000 1785000 1795000	1614470 1618725 1622977 1627228 1631477 1635724 1639969 1644212 1648453 1652693	27.38 27.37 27.36 27.35 27.33 27.32 27.31 27.30 27.29 27.27	1.768 -12 1.734 1.701 1.668 1.637 1.605 1.575 1.545 1.516	279547. 279963. 280380. 280797. 281214. 281631. 282049. 282467. 28285. 283304.	1.009 +12 9.911 +11 9.735 9.563 9.395 9.229 9.066 8.907 8.750 8.596	4415. 4417. 4420. 4422. 4424. 4427. 4429. 4433. 4436.	2.838 - 2 2.789 2.741 2.694 2.648 2.603 2.558 2.515 2.472 2.429	1.556 + 5 1.584 1.612 1.641 1.671 1.701 1.731 1.762 1.794 1.826	17.48 17.46 17.45 17.43 17.41 17.39 17.38 17.36 17.34 17.32
1800000 1805000 1810000 1815000 1825000 1825000 1835000 1845000	1656931 1661166 1665400 1669632 1678862 1678090 1682317 1686541 1690764 1694985	27.26 27.25 27.24 27.23 27.21 27.20 27.19 27.18 27.17 27.15	1.459 -12 1.431 1.404 1.378 1.352 1.326 1.301 1.277 1.253 1.230	283723. 284142. 284561. 284981. 285401. 285821. 286242. 286663. 287084. 287506.	8.445 +11 8.297 8.152 8.009 7.869 7.732 7.597 7.464 7.334 7.207	4438. 4440. 4445. 4447. 4450. 4452. 4456. 4456.	2.388 - 2 2.347 2.307 2.268 2.230 2.192 2.155 2.118 2.082 2.047	1.858 + 5 1.892 1.925 1.960 1.995 2.030 2.066 2.103 2.140 2.178	17.31 17.29 17.28 17.26 17.24 17.23 17.21 17.20 17.18 17.17
1850000 1855000 1860000 1865000 1875000 1885000 1895000 1895000	1699203 1703421 1707636 1711849 1716061 1720270 1724478 1728684 1737090	27.14 27.13 27.12 27.11 27.09 27.08 27.07 27.06 27.05 27.05	1.207 -12 1.184 1.162 1.141 1.119 1.099 1.078 1.058 1.039	287927. 288349. 288772. 289194. 289617. 290040. 290464. 290888. 291312. 291736.	7.082 +11 6.959 6.838 6.719 6.603 6.489 6.377 6.267 6.159 6.053	4461. 4463. 4468. 4470. 4472. 4475. 4477. 4479. 4482.	2.013 - 2 1.979 1.945 1.913 1.881 1.889 1.818 1.788 1.758	2.216 + 5 2.256 2.275 2.336 2.377 2.419 2.461 2.505 2.548 2.593	17.15 17.14 17.12 17.11 17.09 17.08 17.06 17.05 17.04 17.02
1900000 1905000 1910000 1915000 1925000 1935000 1945000 1945000	1741290 1745489 1749686 1753880 1758073 1762265 1766454 1770641 1774827	27.02 27.01 27.00 26.99 26.98 26.96 26.95 26.95 26.93 26.93	1.001 -12 9.825 -13 9.645 9.468 9.295 9.125 8.958 8.758 8.635 8.478	292161. 292586. 293011. 293436. 293862. 294288. 294714. 295141. 295568. 295995.	5.949 +11 5.846 5.746 5.648 5.551 5.456 5.363 5.271 5.181 5.093	4484. 4486. 4481. 4493. 4495. 4497. 4500. 4502.	1.699 - 2 1.671 1.643 1.616 1.589 1.563 1.537 1.511 1.486 1.461	2.639 + 5 2.685 2.732 2.779 2.828 2.877 2.927 2.927 2.927 3.029 3.082	17.01 17.00 16.98 16.97 16.96 16.94 16.93 16.92 16.91 16.90
1950000 1955000 1960000 1965000 1975000 1980000 1985000 19950000	1783193 1787373 1791551 1795728 179902 1804075 1808246 1812415 1816582 1820748	26.90 26.89 26.88 26.87 26.86 26.85 26.83 26.82 26.81	8.324 -13 8.173 8.025 7.880 7.738 7.601 7.467 7.335 7.206 7.079	296423. 296851. 297279. 297707. 298104. 298428. 298752. 299076. 299400. 299725.	5.006 +11 4.921 4.837 4.755 4.675 4.598 4.522 4.447 4.373 4.301	4506. 4509. 4511. 4513. 4515. 4517. 4518. 4520. 4521. 4523.	1.437 - 2 1.414 1.390 1.367 1.345 1.323 1.302 1.280 1.260 1.239	3.135 + 5 3.190 3.245 3.301 3.357 3.414 3.471 3.530 3.589 3.649	16.88 16.87 16.86 16.85 16.84 16.82 16.81 16.80 16.79 16.78
2000000 2010000 2020000 2030000 2040000 2050000 2060000 2070000 2080000 2090000	1824911 1833233 1841548 1849855 1858155 1866448 1874733 1883011 1891282 1899546	26.79 26.76 26.74 26.72 26.69 26.67 26.65 26.62 26.60 26.58	6.954 -13 6.712 6.479 6.254 6.038 5.829 5.628 5.434 5.248 5.068	300050. 300700. 301351. 302002. 302655. 303308. 303962. 304617. 305272.	4.230 +11 4.091 3.958 3.829 3.704 3.584 3.467 3.355 3.247 3.142	4524. 4527. 4530. 4533. 4536. 4539. 4541. 4544. 4547.	1.219 - 2 1.180 1.142 1.106 1.070 1.036 1.003 9.714 - 3 9.406 9.109	3.711 + 5 3.836 3.966 4.099 4.237 4.380 4.527 4.678 4.834 4.995	16.77 16.75 16.72 16.70 16.68 16.66 16.64 16.62 16.60 16.58
2100000 2110000 2120000 2130000 2140000 2150000 2170000 2180000 2190000	1907803 1916052 1924294 1932529 1940757 1948978 1957192 1965398 1973597 1981789	26.55 26.53 26.51 26.48 26.46 26.44 26.41 26.39 26.37 26.35	4.895 -13 4.727 4.566 4.411 4.262 4.117 3.978 3.844 3.715 3.590	306586. 307244. 307903. 308562. 309223. 309884. 310546. 311209. 311872. 312537.	3.041 +11 2.943 2.849 2.758 2.669 2.584 2.502 2.423 2.346 2.272	4553. 4556. 4559. 4562. 4565. 4570. 4573. 4576. 4579.	8.821 - 3 8.543 8.274 8.015 7.763 7.521 7.286 7.059 6.840 6.628	5.162 + 5 5.333 5.510 5.692 5.880 6.073 6.273 6.478 6.690 6.908	16.56 16.54 16.52 16.50 16.48 16.46 16.44 16.42 16.40 16.38

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Altitu Z, ft		Accel. due to gravity a.ft sec ⁻²	Specific weight ω, lb ft ⁻² sec ⁻²	Pressure scale height H _P , ft	Number density n, ft ⁻³	Particle speed V, ft sec'	Collision frequency ν , sec ⁻¹	Mean free path L, ft	Molecular weight M
2240000 2250000 2260000 2270000 2280000	1989974 1998152 2006323 2014487 2022643 2030793 2038936 2047071 2055199 2063321	26.32 26.30 26.28 26.25 26.23 26.21 26.19 26.16 26.14 26.12	3.470 -13 3.354 3.242 3.134 3.030 2.929 2.832 2.738 2.648 2.561	313202. 313868. 314535. 315202. 315871. 316540. 317210. 317881. 318552. 319225.	2.200 +11 2.131 2.064 2.000 1.937 1.877 1.819 1.762 1.708 1.655	4582. 4585. 4588. 4591. 4593. 4599. 4602. 4605. 4608.	6.424 - 3 6.225 6.034 5.849 5.670 5.497 5.329 5.167 5.011 4.859	7.133 + 5 7.365 7.603 7.849 8.102 8.362 8.630 8.906 9.190 9.483	16.36 16.34 16.32 16.31 16.29 16.27 16.24 16.22 16.20 16.18
2300000 2310000	2071435 2079543 2087643	26.10 26.07 26.05	2.477 -13 2.396 2.317	319898. 320572. 321247.	1.604 +11 1.555 1.507	4611. 4614. 4616.	4.713 - 3 4.571 4.434	9.784 + 5 1.009 + 6 1.041	16.16 16.14 16.12
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Table VI

SOUND SPEED, COEFFICIENT OF VISCOSITY, KINEMATIC VISCOSITY, AND THERMAL CONDUCTIVITY

English Units

Note: A one- or two-digit number (preceded by a plus or minus sign) following the initial entry of each block indicates the power of ten by which that entry and each succeeding entry of that block should be multiplied. A change of power occurring within a block is indicated by a similar notation.

TABLE $\overline{\mathbf{VI}}$ GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Alti	tude	Sound speed		of viscosity		viscosity	Thermal c	onductivity
H, ft	Z, ft	C _s ,	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η, ft² sec⁻ʻ	$\frac{\eta}{\eta_0}$	k , BTU ft ⁻¹ sec ⁻¹ (°R) ⁻¹	k _O
-16500 -16400 -16300 -16200 -16100	-16487 -16387 -16287 -16187 -16088	1178.08 1177.71 1177.35 1176.99 1176.62	1.3056 - 5 1.3050 1.3044 1.3038 1.3032	1.08585 + 0 1.08534 1.08483 1.08433 1.08433	1.0806 - 4 1.0830 1.0853 1.0877 1.0900	6.87302 - 1 6.88789 6.90281 6.91777 6.93276	4.4736 - 6 4.4712 4.4688 4.4663 4.4639	1.09985 + 0 1.09926 1.09866 1.09807 1.09747
-16000 -15900 -15800 -15700 -15600 -15400 -15300 -15200 -15100	-15988 -15888 -15788 -15688 -15588 -15488 -15289 -15289 -15189 -15089	1176.26 1175.89 1175.53 1175.16 1174.80 1174.84 1174.07 1173.71 1173.34 1172.97	1.3026 - 5 1.3014 1.3014 1.3007 1.3001 1.2995 1.2989 1.2983 1.2977	1.08331 + 0 1.08280 1.08229 1.08179 1.08128 1.08077 1.08026 1.07975 1.07924	1.0924 - 4 1.0948 1.0972 1.0995 1.1019 1.1067 1.1067 1.1116 1.1116	6.94780 - 1 6.96288 6.97800 6.99317 7.00837 7.02362 7.03891 7.05424 7.06962 7.08503	4.4615 - 6 4.4591 4.4566 4.4542 4.4518 4.4494 4.4469 4.4465 4.4485 4.4491 4.4485	1.09688 + 0 1.09628 1.09568 1.09509 1.09449 1.09389 1.09330 1.09270 1.09210
-15000 -14900 -14800 -14700 -14500 -14500 -14400 -14300 -14100	- 14989 - 14889 - 14790 - 14690 - 14590 - 14490 - 14290 - 14190 - 14090	1172.61 1172.24 1171.88 1171.51 1171.15 1170.78 1170.78 1170.05 1169.68 1169.32	1.2965 - 5 1.2959 1.2952 1.2946 1.2940 1.2934 1.2928 1.2922 1.2916 1.2909	1.07823 + 0 1.07772 1.07772 1.077619 1.07568 1.07517 1.07466 1.07466	1.1164 - 4 1.1189 1.1213 1.1237 1.1262 1.1287 1.1311 1.1336 1.1361 1.1386	7.10049 - 1 7.11519 7.13154 7.14713 7.16276 7.17844 7.19416 7.20992 7.22573 7.24158	4.4372 - 6 4.4348 4.4324 4.4299 4.4275 4.4251 4.4226 4.4202 4.4178 4.4153	1.09091 + 0 1.09031 1.08971 1.08912 1.08852 1.08792 1.08732 1.08672 1.08613 1.08553
-14000 -13900 -13800 -13700 -13600 -13500 -13400 -13200 -13100	-13991 -13891 -13791 -13691 -13591 -13491 -13391 -13292 -13192 -13092	1168.95 1168.58 1168.22 1167.85 1167.48 1167.11 1166.75 1166.38 1166.01	1.2903 - 5 1.2897 1.2891 1.2885 1.2879 1.2860 1.2860 1.2854 1.2848	1.07312 + 0 1.07261 1.07210 1.07159 1.07108 1.07005 1.06905 1.06905 1.06903	1.1411 - 4 1.1436 1.1461 1.1486 1.1512 1.1537 1.1562 1.1588 1.1613 1.1639	7.25747 - 1 7.27341 7.28940 7.30542 7.32150 7.33761 7.35378 7.36999 7.38624 7.40254	4.4129 - 6 4.4105 4.4056 4.4032 4.4007 4.3983 4.3958 4.3958 4.3934 4.3910	1.08493 + 0 1.08433 1.08373 1.08313 1.08254 1.08194 1.08134 1.08074 1.08014
-13000 -12900 -12800 -12700 -12600 -12500 -12400 -12300 -12200 -12100	-12992 -12892 -12792 -12692 -12592 -12493 -12393 -12293 -12193 -12093	1165.28 1164.91 1164.54 1164.17 1163.81 1163.44 1163.07 1162.70 1162.33 1161.96	1.2842 - 5 1.2836 1.2829 1.2823 1.2817 1.2811 1.2805 1.2799 1.2792 1.2786	1.06801 + 0 1.06750 1.06698 1.06647 1.06596 1.06544 1.06493 1.06442 1.06339	1.1665 - 4 1.1691 1.1716 1.1742 1.1768 1.1794 1.1820 1.1847 1.1873 1.1899	7.41889 - 1 7.43528 7.45171 7.46820 7.48473 7.50130 7.51793 7.53460 7.55131 7.56808	4.3885 - 6 4.3861 4.3837 4.3812 4.3788 4.3763 4.3739 4.3714 4.3690 4.3666	1.07894 + 0 1.07834 1.07774 1.07774 1.07754 1.07594 1.07534 1.07474 1.07414
-12000 -11900 -11800 -11700 -11600 -11500 -11400 -11300 -11200 -11100	-11993 -11893 -11793 -11693 -11594 -11394 -11294 -11194 -11194		1.2780 - 5 1.2774 1.2768 1.2762 1.2755 1.2749 1.2743 1.2737 1.2731	1.04288 + 0 1.04236 1.04185 1.04133 1.04082 1.04030 1.05977 1.05927 1.05874	1.1926 - 4 1.1952 1.1979 1.2006 1.2032 1.2059 1.2086 1.2113 1.2140 1.2140	7.58489 - 1 7.60175 7.61865 7.63561 7.65261 7.66966 7.68676 7.70390 7.72110 7.73834	4.3641 - 6 4.3617 4.3592 4.3568 4.3519 4.3495 4.3470 4.3446 4.3421	1.07294 + 0 1.07234 1.07174 1.071174 1.07053 1.06993 1.06973 1.06873 1.06813
-11000 -10900 -10800 -10700 -10600 -10500 -10400 -10300 -10200 -10100	-10994 -10894 -10794 -10695 -10595 -10495 -10295 -10295 -10195 -10095	1157.90 1157.53 1157.16 1156.79 1156.42 1156.05 1155.68 1155.31 1154.94 1154.56	1.2718 - 5 1.2712 1.2706 1.2700 1.2693 1.2687 1.2681 1.2675 1.2669	1.05773 + 0 1.05771 1.05670 1.05618 1.05566 1.05515 1.05463 1.05411 1.05360	1.2194 - 4 1.2222 1.2249 1.2276 1.2304 1.2331 1.2359 1.2387 1.2415	7.75564 - 1 7.77298 7.79037 7.80781 7.82530 7.84284 7.86643 7.87807 7.89577 7.91351	4.3397 - 6 4.3372 4.3348 4.3323 4.3299 4.3274 4.3250 4.3255 4.3201 4.3176	1.06693 + 0 1.00632 1.00572 1.00512 1.00452 1.00391 1.00371 1.00271 1.00211
-10000 -9900 -9800 -9700 -9600 -9500 -9400 -9300 -9200 -9100	-9995 -9895 -9795 -9695 -9596 -9496 -9396 -9296 -9196	1154-19 1153-82 1153-45 1153-08 1152-71 1152-34 1151-99 1151-59 1151-22 1150-85	1.2656 - 5 1.2650 1.2644 1.2637 1.2631 1.2625 1.2619 1.2613 1.2606 1.2600	1.05256 + 0 1.05205 1.05153 1.05101 1.05049 1.04948 1.04946 1.04894 1.04882	1.2470 - 4 1.2498 1.2527 1.2555 1.2583 1.2612 1.2640 1.2669 1.2697	7.93130 - 1 7.94914 7.96704 7.98498 8.00298 8.00298 8.003913 8.03913 8.05728 8.07548 8.09374	4.3152 - 6 4.3127 4.3078 4.3053 4.3053 4.3059 4.3004 4.2980 4.2955 4.2931	1.06090 + 0 1.06030 1.05969 1.05909 1.05788 1.05728 1.05668 1.05607 1.05547

TABLE VI GEOMETRIC ALTITUDE, ENGLISH UNITS

	GEOMETRIC ALTITUDE, ENGLISH UNITS												
Alti	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	onductivity					
Z, ft	H, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft z sec $^{-1}$	$\frac{\eta}{\eta_0}$	k , BTU ft ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O					
-16500 -16400 -16300 -16200 -16100	-16513 -16413 -16313 -16213 -16112	1178.13 1177.76 1177.40 1177.03 1176.67	1.3057 - 5 1.3051 1.3045 1.3039 1.3033	1.08591 + 0 1.08540 1.08490 1.08439 1.08388	1.0803 - 4 1.0827 1.0850 1.0874 1.0897	6.87108 - 1 6.88597 6.90090 6.91588 6.93089	4.4739 - 6 4.4715 4.4691 4.4666 4.4642	1.09993 + 0 1.09934 1.09874 1.09814 1.09755					
-16000 -15900 -15800 -15700 -15600 -15500 -15300 -15200 -15100	-16012 -15912 -15812 -15712 -15612 -15512 -15411 -15311 -15211	1176.30 1175.94 1175.57 1175.21 1174.84 1174.48 1174.11 1173.75 1173.38 1173.01	1.3027 - 5 1.3020 1.3014 1.3008 1.3002 1.2996 1.2996 1.29984 1.2978	1.08337 + 0 1.08286 1.08236 1.08185 1.08134 1.08083 1.08032 1.07981 1.07981	1.0921 - 4 1.0945 1.0969 1.0963 1.1017 1.1041 1.1065 1.1089 1.1113	6.94595 - 1 6.96105 6.97619 6.99137 7.00659 7.02186 7.03717 7.05252 7.06791 7.08334	4.4618 - 6 4.4569 4.4565 4.4521 4.4496 4.4472 4.4448 4.4423 4.4399	1.09695 + 0 1.09635 1.09575 1.09516 1.09456 1.09396 1.09396 1.09277 1.09217					
-15000 -14900 -14800 -14700 -14500 -14500 -14300 -14200 -14100	-15011 -14911 -14811 -14710 -14610 -14510 -14410 -14310 -14210	1172.65 1172.28 1171.92 1171.55 1171.18 1170.82 1170.45 1170.08 1169.72 1169.35	1.2965 - 5 1.2959 1.2953 1.2947 1.2941 1.2935 1.2929 1.2922 1.2916	1.07828 + 0 1.07777 1.077726 1.07675 1.07624 1.07573 1.07522 1.07471 1.07420 1.07368	1.1162 - 4 1.1186 1.1210 1.1235 1.1260 1.1284 1.1309 1.1334 1.1359	7.09882 - 1 7.11434 7.12900 7.14551 7.16116 7.17685 7.19259 7.20837 7.222419 7.24006	4.4375 - 6 4.4326 4.4302 4.4277 4.4253 4.4229 4.4204 4.4180 4.4156	1.09097 + 0 1.09037 1.08978 1.08918 1.08858 1.08798 1.08738 1.08678 1.08618 1.08618					
-14000 -13900 -13800 -13700 -13600 -13500 -13300 -13200 -13100	-14009 -13909 -13809 -13709 -13609 -13509 -13409 -13308 -13208	1168.98 1168.62 1168.25 1167.88 1167.51 1167.15 1166.78 1166.41 1166.04	1.2904 - 5 1.2898 1.2892 1.2885 1.2879 1.2873 1.2867 1.2861 1.2855 1.2848	1.07317 + 0 1.07266 1.07215 1.07164 1.07713 1.077061 1.07010 1.06959 1.06908	1.1409 - 4 1.1434 1.1459 1.1484 1.1509 1.1535 1.1560 1.1586 1.1611 1.1637	7.25597 - 1 7.27193 7.28793 7.30398 7.32007 7.33620 7.35238 7.36861 7.36888 7.40120	4.4131 - 6 4.4107 4.4083 4.4058 4.4058 4.4009 4.3985 4.3961 4.3936 4.3912	1.08499 + 0 1.08439 1.08379 1.08379 1.08259 1.08199 1.08199 1.08079 1.08019					
-13000 -12900 -12800 -12700 -12600 -12500 -12400 -12300 -12200 -12100	-13008 -12908 -12808 -12708 -12608 -12507 -12407 -12307 -12207 -12107	1165.31 1164.94 1164.57 1164.20 1163.83 1163.47 1163.10 1162.73 1162.36 1161.99	1.2842 - 5 1.2836 1.2830 1.2824 1.2818 1.2811 1.2805 1.2799 1.2793 1.2787	1.06805 + 0 1.06754 1.06702 1.06651 1.06600 1.06548 1.06497 1.06446 1.06394	1.1663 - 4 1.1688 1.1714 1.1740 1.1766 1.1792 1.1819 1.1845 1.1871 1.1897	7.41756 - 1 7.43397 7.45042 7.46692 7.46847 7.50006 7.51670 7.53338 7.55012 7.56690	4.3887 - 6 4.3863 4.3838 4.3814 4.3790 4.3765 4.3741 4.3716 4.3667	1.07899 + 0 1.07839 1.07779 1.07779 1.07559 1.07599 1.07538 1.07478 1.07418					
-12000 -11900 -11800 -11700 -11600 -11500 -11400 -11300 -11200 -11100	-12007 -11907 -11807 -11707 -11606 -11506 -11406 -11306 -11206 -11106		1.2781 - 5 1.2774 1.2768 1.2762 1.2756 1.2750 1.2743 1.2737 1.2731 1.2725	1.06291 + 0 1.06240 1.06188 1.06137 1.06085 1.06034 1.05982 1.05931 1.05879	1.1924 - 4 1.1950 1.1977 1.2004 1.2031 1.2057 1.2084 1.2111 1.2138	7.58372 - 1 7.60060 7.61752 7.63149 7.65151 7.66857 7.70285 7.72006 7.73732	4.3643 - 6 4.3594 4.3569 4.3569 4.3521 4.3496 4.3472 4.3447 4.3423	1.07298 + 0 1.07238 1.07178 1.07118 1.07057 1.06997 1.06937 1.06816 1.06756					
-11000 -10900 -10800 -10700 -10600 -10500 -10500 -10200 -10100	-11006 -10906 -10806 -10705 -10605 -10505 -10405 -10305 -10205 -10105	1157.92 1157.55 1157.18 1156.81 1156.44 1156.07 1155.70 1155.33 1154.95 1154.58	1.2719 - 5 1.2712 1.2706 1.2700 1.2694 1.2688 1.2681 1.2669 1.2669	1.05776 + 0 1.05724 1.05673 1.05621 1.05569 1.05518 1.05466 1.05414 1.05362	1.2193 ~ 4 1.2220 1.2247 1.2275 1.2375 1.2330 1.2358 1.2385 1.2413	7.75463 - 1 7.77199 7.78940 7.80685 7.82436 7.84191 7.85952 7.87718 7.89488 7.91264	4.3398 - 6 4.3374 4.3349 4.3325 4.3325 4.3275 4.3251 4.3226 4.3202 4.3177	1.06696 + 0 1.066375 1.06575 1.06515 1.06455 1.06395 1.06334 1.06274 1.06214					
-10000 -9900 -9800 -9700 -9500 -9500 -9400 -9300 -9200 -9100	-1005 -9905 -9805 -9705 -9604 -9504 -9404 -9304 -9204 -9104	1154.21 1153.84 1153.47 1153.10 1152.72 1152.35 1151.98 1151.61 1151.23 1150.86	1.2656 - 5 1.2650 1.2644 1.2638 1.2631 1.2625 1.2619 1.2613 1.2607 1.2600	1.05259 + 0 1.05207 1.05155 1.05103 1.05052 1.05000 1.04948 1.04896 1.04844 1.04792	1.2469 - 4 1.2497 1.2525 1.2554 1.2582 1.2610 1.2639 1.2667 1.2696	7.93044 - 1 7.94830 7.96621 7.98417 8.00218 8.02024 8.03635 8.05652 8.07474 8.09301	4.3153 - 6 4.3128 4.3104 4.3079 4.3054 4.3030 4.3005 4.2981 4.2956 4.2932	1.06093 + 0 1.06033 1.05972 1.05912 1.05851 1.05791 1.05730 1.05670 1.05610 1.05549					

TABLE VI.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Δltit	ude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
H, ft	Z, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η, ft² sec⁻ʻ	$\frac{\eta}{\eta_0}$	k , BTU ft ^{-l} sec ^{-l} (°R) ^{-l}	k k _O
-9000 -8900 -8800 -8700 -8600 -8500 -8400 -8300 -8200 -8100	-8497 -8397 -8297 -8197	1150.47 1150.10 1149.73 1149.36 1148.98 1148.61 1148.24 1147.86 1147.49	1.2594 - 5 1.2581 1.2581 1.2575 1.2563 1.2563 1.2556 1.2550 1.25544 1.2538	1.04738 + 0 1.04634 1.04531 1.04531 1.0457 1.04479 1.04475 1.04375 1.04373	1.2755 - 4 1.2783 1.28812 1.2841 1.2871 1.29700 1.2929 1.2958 1.2988 1.3017	8.11205 - 1 8.13041 8.14882 8.16729 8.18581 8.20439 8.22301 8.24169 8.26043 8.27922	4.2906 - 6 4.2881 4.2857 4.2832 4.2808 4.2783 4.2783 4.2734 4.2734 4.2709	1.05486 + 0 1.05426 1.05365 1.05365 1.05245 1.05184 1.05124 1.05063 1.05003
-8000 -7900 -7800 -7700 -7600 -7500 -7400 -7300 -7200 -7100	-7897 -7797 -7697 -7597 -7597 -7397 -7297 -7198	1146.74 1146.37 1146.00 1145.62 1145.25 1144.87 1144.50 1144.13 1143.75 1143.38	1.2531 - 5 1.2525 1.2519 1.2513 1.2506 1.2500 1.2494 1.2487 1.2487 1.2481	1.04219 + 0 1.04167 1.04114 1.04062 1.04010 1.03958 1.03906 1.03854 1.03802 1.03749	1.3047 - 4 1.3077 1.3107 1.3136 1.3166 1.3197 1.3227 1.3227 1.3257 1.3287	8.29806 - 1 8.31696 8.33591 8.355492 8.37398 8.39310 8.41227 8.43150 8.45079	h.2660 - 6 h.2635 h.2611 h.2586 h.2561 h.2537 h.2512 h.2487 h.2463 h.2438	1.04881 + 0 1.04821 1.04760 1.04700 1.04639 1.04579 1.04518 1.04457 1.04397
-7000 -6900 -6800 -6700 -6500 -6500 -6300 -6200 -6100	-6898 -6798 -6698 -6598 -6498 -6398 -6298 -6198	1143.00 1142.63 1142.25 1141.88 1141.50 1141.13 1140.75 1140.37 1140.00 1139.62	1.2469 - 5 1.2456 1.2456 1.2450 1.24437 1.2437 1.2431 1.2425 1.2418	1.03697 + 0 1.03645 1.03593 1.03590 1.03580 1.03486 1.03384 1.03331 1.03279	1.3348 - 4 1.3379 1.3409 1.3440 1.3471 1.3502 1.3533 1.3564 1.3595 1.3627	8.48953 - 1 8.50878 8.52849 8.52849 8.54806 8.56769 8.58737 8.60711 8.62690 8.64676 8.66667	4.2413 - 6 4.2384 4.2364 4.2359 4.2315 4.2290 4.2265 4.2241 4.2216 4.2191	1.04275 + 0 1.04215 1.04154 1.04093 1.04093 1.03972 1.03911 1.03851 1.03770 1.03729
-6000 -5900 -5800 -5700 -5600 -5500 -5400 -5300 -5200 -5100	-5798 -5698 -5598 -5499 -5399 -5299 -5199	1139.25 1138.87 1138.49 1138.12 1137.74 1137.36 1136.99 1136.61 1136.23 1135.86	1.2406 - 5 1.2399 1.2393 1.2387 1.2381 1.2374 1.2368 1.2365 1.2355	1.03174 + 0 1.03122 1.03069 1.03017 1.02964 1.029912 1.02880 1.02807 1.02754	1.3658 - 4 1.3690 1.3721 1.3753 1.3785 1.3816 1.3848 1.3880 1.39913	8.68664 - 1 8.70667 8.72676 8.74691 8.76712 8.78738 8.80771 8.82809 8.84854 8.86905	4.2167 - 6 4.2142 4.2117 4.2092 4.2068 4.2043 4.2018 4.1993 4.1969 4.1944	1.03668 + 0 1.03607 1.03547 1.03486 1.03425 1.03364 1.03303 1.03242 1.03182
-5000 -4900 -4800 -4700 -4600 -4500 -4800 -4300 -4100	-4899 -4799 -4699 -4599 -4499 -4399 -4299 -4199	1135.48 1135.10 1134.72 1134.35 1133.97 1133.59 1133.21 1132.83 1132.46 1132.08	1.2343 - 5 1.2336 1.2330 1.2324 1.2317 1.2311 1.2305 1.2298 1.2292	1.02649 + 0 1.02597 1.02544 1.02492 1.02499 1.02386 1.02384 1.02281 1.02281	1.3977 — 4 1.4010 1.4042 1.4075 1.4107 1.4140 1.4173 1.4206 1.4239 1.4273	8.88961 - 1 8.91024 8.93093 8.95167 8.97248 8.99336 9.01429 9.03528 9.05634 9.07746	4.1919 - 6 4.1894 4.1870 4.1845 4.1820 4.1795 4.1770 4.1746 4.1721 4.1696	1.03060 + 0 1.02999 1.02938 1.02817 1.02816 1.02755 1.02694 1.02633 1.02572
-4000 -3900 -3800 -3700 -3600 -3500 -3400 -3300 -3200 -3100	-3899 -3799 -3699 -3599 -3499 -3399 -3299 -3200	1131.70 1131.32 1130.94 1130.56 1130.18 1129.80 1129.42 1129.04 1128.67 1128.29	1.2279 - 5 1.2273 1.2260 1.2260 1.2254 1.2241 1.2235 1.2229	1.02123 + 0 1.02070 1.02017 1.01965 1.01912 1.01859 1.01856 1.01753 1.017701	1.4306 - 4 1.4339 1.4373 1.4406 1.4440 1.4474 1.4508 1.4542 1.4576 1.4610	9.09864 - 1 9.11089 9.14120 9.14257 9.18400 9.20550 9.22706 9.24869 9.27038 9.29214	4.1671 - 6 4.1646 4.1621 4.1597 4.1572 4.1547 4.1522 4.1472 4.1448	1.02450 + 0 1.02389 1.02328 1.02267 1.02206 1.02145 1.02084 1.02023 1.01962
-3000 -2900 -2800 -2700 -2600 -2500 -2400 -2300 -2200 -2100	-2900 -2800 -2700 -2600 -2500 -2400 -2300 -2200	1127.91 1127.53 1127.15 1126.77 1126.38 1126.00 1125.62 1125.24 1124.86 1124.88	1.2216 - 5 1.2209 1.2203 1.2197 1.2190 1.2184 1.2178 1.2171 1.2165 1.2159	1.01595 + 0 1.01542 1.01489 1.01436 1.01383 1.01330 1.01277 1.01224 1.01171	1.4644 - 4 1.4679 1.4713 1.4748 1.4783 1.4817 1.4852 1.4887 1.4923 1.4923	9.31396 - 1 9.33585 9.35780 9.37982 9.40190 9.42405 9.44625 9.46855 9.46855 9.49090 9.51331	4.1423 - 6 4.1398 4.1373 4.1348 4.1323 4.1298 4.1273 4.1248 4.1224 4.1199	1.01839 + 0 1.01778 1.01717 1.01656 1.01595 1.01534 1.01472 1.01471 1.01350 1.01289
-2000 -1900 -1800 -1700 -1600 -1500 -1400 -1300 -1200 -1100	-1600 -1500 -1400 -1300 -1200	1124.10 1123.72 1123.34 1122.96 1122.57 1122.19 1121.81 1121.43 1121.05	1.2152 - 5 1.2146 1.2139 1.2133 1.2127 1.2120 1.2114 1.2107 1.2101 1.2095	1.01065 + 0 1.01012 1.00959 1.00959 1.00853 1.00799 1.00746 1.00649 1.00640	1.4993 - 4 1.5029 1.5064 1.5100 1.5136 1.5172 1.5208 1.5244 1.5280	9.53580 - 1 9.55835 9.58097 9.60365 9.62641 9.64923 9.67212 9.67508 9.71812 9.74122	4.1174 - 6 4.1149 4.1124 4.1099 4.1074 4.1024 4.0029 4.0979 4.0979	1.01228 + 0 1.01166 1.01105 1.01054 1.00982 1.00921 1.00860 1.00798 1.00737

TABLE VI.—Continued GEOMETRIC ALTITUDE, ENGLISH UNITS

	speed	Coernicieni	of viscosity	Kinematic	viscosity	Thermal c	nductivity	
Z, ft H, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η,. ft² sec⁻¹	$\frac{\eta}{\eta_0}$	k, BTU ft ^{-l} sec ^{-l} (°R) ^{-l}	k k _O	
-9000 -9004 -8900 -8904 -8800 -8804 -8700 -8704 -8500 -8503 -8400 -8403 -8300 -8303 -8200 -8203 -8100 -8103	1150.49 1150.12 1149.74 1149.37 1149.00 1148.62 1148.52 1147.58 1147.50 1147.13	1.2594 - 5 1.2582 1.2582 1.2575 1.2569 1.2563 1.2557 1.2550 1.2544 1.2538	1.04740 + 0 1.04686 1.04584 1.04582 1.04582 1.04480 1.04488 1.04376 1.04324	1.275% - % 1.2782 1.2811 1.2840 1.2870 1.2899 1.2928 1.2957 1.2987 1.3017	8.11134 - 1 8.12971 8.14814 8.16662 8.18515 8.20374 8.22238 8.24108 8.25982 8.27863	4.2907 - 6 4.2882 4.2858 4.2853 4.2809 4.2784 4.2759 4.2735 4.2710 4.2685	1.05889 + 0 1.05828 1.05338 1.05307 1.05247 1.05186 1.05126 1.05065 1.05004 1.04944	
-8000 -8003 -7900 -7903 -7800 -7803 -7700 -7603 -7600 -7603 -7500 -7503 -7400 -7403 -7300 -7303 -7200 -7202 -7100 -7102	1146.76 1146.38 1146.01 1145.63 1145.26 1144.88 1144.51 1144.13 1143.76	1.2532 - 5 1.2525 1.2519 1.2513 1.2506 1.2500 1.2494 1.2488 1.2481	1.04220 + 0 1.04168 1.04116 1.04064 1.04012 1.03959 1.03907 1.03855 1.03803	1.30%6 - % 1.3076 1.3106 1.3136 1.3166 1.3196 1.3226 1.3226 1.3286 1.33317	8.29748 - 1 8.31639 8.33536 8.35438 8.37346 8.39259 8.41177 8.43101 8.45031	4.2661 - 6 4.2636 4.2611 4.2587 4.2562 4.2537 4.2513 4.2488 4.2463 4.2463	1.04883 + 0 1.04823 1.04762 1.04702 1.04641 1.04580 1.04520 1.0459 1.04398 1.04338	
-7000 -7002 -6900 -6902 -6800 -6802 -6700 -6702 -6500 -6502 -6400 -6502 -6400 -6302 -6200 -6202 -6100 -6102	1143.01 1142.63 1142.26 1141.88 1141.51 1141.13 1140.76 1140.38 1140.00 1139.63	1.2469 - 5 1.2462 1.2456 1.2450 1.2444 1.2437 1.2431 1.2425 1.2418	1.03698 + 0 1.03594 1.03594 1.03592 1.03899 1.03837 1.03385 1.03332 1.03280 1.03227	1.3347 - 4 1.3378 1.3409 1.3440 1.3470 1.3501 1.3532 1.3564 1.3595 1.3626	8.48907 - 1 8.50854 8.52806 8.54764 8.56727 8.56697 8.60672 8.62653 8.64639	4.2414 - 6 4.2365 4.2365 4.2340 4.2315 4.2291 4.2266 4.2241 4.2216 4.2192	1.04277 + 0 1.04216 1.04155 1.04095 1.04034 1.03973 1.03912 1.03852 1.03791 1.03730	
-6000 -6002 -5900 -5902 -5800 -5802 -5700 -5702 -5600 -5602 -5500 -5501 -5400 -5401 -5300 -5301 -5200 -5201 -5100 -5101	1139.25 1138.88 1138.50 1138.12 1137.75 1137.37 1136.99 1136.62 1136.24 1135.86	1.2406 - 5 1.2400 1.2393 1.2387 1.2381 1.2374 1.2368 1.2362 1.2355 1.2349	1.03175 + 0 1.03123 1.03070 1.03018 1.02965 1.02913 1.02860 1.02808 1.02755	1.3658 - 4 1.3689 1.3721 1.3752 1.3784 1.3816 1.3848 1.3880 1.3912 1.3912	8.68630 - 1 8.70634 8.72644 8.74660 8.74661 8.78681 8.80742 8.80742 8.84827 8.86879	4.2167 - 6 4.2142 4.2117 4.2093 4.2068 4.2043 4.2018 4.1994 4.1969	1.03669 + 0 1.03608 1.03548 1.03487 1.03426 1.03365 1.03304 1.03243 1.03182	
-5000 -5001 -4900 -4901 -4800 -4801 -4700 -4701 -4600 -4601 -4500 -4501 -4800 -4801 -4800 -4801 -4200 -4201 -4100 -4101	1135.48 1135.11 1134.73 1134.35 1133.97 1133.59 1133.22 1132.84 1132.86 1132.08	1.2343 - 5 1.2336 1.2330 1.2324 1.2317 1.2311 1.2305 1.2298 1.2292	1.02650 + 0 1.02597 1.02545 1.02492 1.02490 1.02387 1.02234 1.02282 1.02229	1.3977 - 4 1.4009 1.4042 1.4074 1.4107 1.4140 1.4173 1.4239 1.4239 1.4272	8.88936 - 1 8.91000 8.93070 8.93145 8.97227 8.99315 9.01409 9.03510 9.05616 9.07729	4.1919 - 6 4.1895 4.1845 4.1845 4.1820 4.1795 4.1771 4.1746 4.1721 4.1696	1.03061 + 0 1.03000 1.02939 1.02817 1.02817 1.02756 1.02695 1.02695 1.02573	
-\u000 -\u000000000000000000000000000000	1131.70 1131.32 1130.94 1130.56 1130.19 1129.81 1129.43 1129.05 1128.67 1128.29	1.2279 - 5 1.2273 1.2267 1.2260 1.2254 1.2248 1.2241 1.2235 1.2229 1.2222	1.02123 + 0 1.02071 1.02018 1.01965 1.01912 1.01859 1.01807 1.01754 1.01701	1.4306 - 4 1.4339 1.4373 1.4406 1.4406 1.4474 1.4508 1.4542 1.4576 1.4610	9.09848 - 1 9.11973 9.14105 9.16243 9.18387 9.20538 9.22695 9.22695 9.22698 9.27028	4.1671 - 6 4.1646 4.1622 4.1597 4.1572 4.1587 4.1522 4.1497 4.1473 4.1448	1.02451 + 0 1.02390 1.02329 1.02268 1.02206 1.02145 1.02084 1.02023 1.01962 1.01901	
-3000 -3000 -2900 -2900 -2800 -2800 -2600 -2600 -2500 -2500 -2400 -2400 -2300 -2300 -2200 -2200 -2100 -2100	1127.91 1127.53 1127.15 1126.77 1126.39 1126.01 1125.62 1125.24 1124.86 1124.48	1.2216 - 5 1.2210 1.2203 1.2197 1.2190 1.2184 1.2178 1.2171 1.2165 1.2159	1.01595 + 0 1.01542 1.01489 1.01436 1.01383 1.01330 1.01277 1.01224 1.01118	1.4644 - 4 1.4679 1.4713 1.4748 1.4763 1.4817 1.4852 1.4887 1.4923	9.31387 - 1 9.33576 9.35772 9.37974 9.40183 9.42398 9.44620 9.446849 9.49084 9.51326	4.1423 - 6 4.1398 4.1373 4.1348 4.1323 4.1298 4.1273 4.1249 4.1224 4.1199	1.01840 + 0 1.01779 1.01717 1.01656 1.01595 1.01534 1.01473 1.01411 1.01350 1.01289	
-2000 -2000 -1900 -1900 -1800 -1800 -1700 -1700 -1600 -1600 -1500 -1500 -1400 -1400 -1300 -1300 -1200 -1200	1124-10 1123-72 1123-34 1122-96 1122-57 1122-19 1121-83 1121-05 1120-66	1.2152 - 5 1.2146 1.2139 1.2133 1.2127 1.2120 1.2114 1.2107 1.2101	1.01065 + 0 1.01012 1.00959 1.00906 1.00853 1.00799 1.00746 1.00693 1.00640	1.4993 - 4 1.5029 1.5064 1.5100 1.5136 1.5172 1.5208 1.5244 1.5280 1.5316	9.53575 - 1 9.55831 9.58093 9.60362 9.62638 9.64921 9.67210 9.69507 9.71810	4.1174 - 6 4.1149 4.1124 4.1059 4.1074 4.1049 4.1024 4.0999 4.0974 4.0949	1-01228 + 0 1-01166 1-01105 1-010% 1-00982 1-00921 1-00860 1-00798 1-00737	

TABLE VI.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altitud	de	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal co	onductivity
H, ft	Z, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k, BTU ft ^{-l} sec ^{-l} (°R) ^{-l}	k k _O
-1000 -900 -800 -700 -500 -500 -400 -300 -200 -100	-1000 -900 -800 -700 -600 -500 -400 -300 -200 -100	1120.28 1119.90 1119.52 1119.13 1118.75 1118.37 1117.98 1117.60 1117.22	1.2088 - 5 1.2082 1.2075 1.2069 1.2063 1.2056 1.2050 1.2043 1.2037	1.00533 + 0 1.00487 1.00427 1.00374 1.00320 1.00267 1.00214 1.00160 1.00107	1.5353 - 4 1.5389 1.5426 1.5463 1.5499 1.5536 1.5574 1.5611 1.5648	9.76439 - 1 9.78763 9.81094 9.83432 9.85777 9.88130 9.90489 9.92856 9.92856 9.97611	4.0924 - 6 4.0899 4.0874 4.0849 4.0824 4.0799 4.0775 4.0750 4.0725 4.0725	1.00614 + 0 1.00553 1.00492 1.00430 1.00369 1.00307 1.00246 1.00184 1.00123
c	o	1116.45	1.2024 - 5	1.00000 + 0	1.5723 - 4	1.00000 + 0	4.0674 - 6	1.00000 +
100 200 300 400 500 600 700 800 900	100 200 300 400 500 600 700 800 900	1116-07 1115-68 1115-30 1114-91 1114-53 1114-14 1113-76 1113-38 1112-99	1.2018 1.2011 1.2005 1.1998 1.1992 1.1985 1.1979 1.1973 1.1966	9.99466 - 1 9.98931 9.98397 9.97362 9.97327 9.96792 9.96256 9.95721 9.95185	1.5761 1.5798 1.5836 1.5874 1.5913 1.5951 1.5989 1.6066	1.00239 + 0 1.00480 1.00721 1.00963 1.01205 1.01448 1.01692 1.01937	\$.0649 \$.0624 \$.0599 \$.0574 \$.0524 \$.0524 \$.0499 \$.0474	9.99385 - 9.98170 9.98155 9.97539 9.96924 9.96308 9.95693 9.95077 9.94461
1000 1100 1200 1300 1400 1500 1600 1700 1800 1900	1000 1100 1200 1300 1400 1500 1600 1700 1800 1900	1112.61 1112.22 1111.83 1111.45 1111.06 1110.68 1110.29 1109.91 1109.52 1109.13	1.1960 - 5 1.1953 1.1947 1.1940 1.1934 1.1927 1.1921 1.1915 1.1908	9.94649 - 1 9.94113 9.93577 9.93577 9.92503 9.91967 9.91430 9.90892 9.90355 9.89818	1.6105 - 4 1.6184 1.6183 1.6222 1.6261 1.6300 1.6379 1.6419 1.6459	1.02429 + 0 1.02676 1.02923 1.03172 1.03421 1.035471 1.03922 1.04173 1.04426 1.04679	4.0424 - 6 4.0397 4.0374 4.0349 6.0324 4.0299 4.0274 4.0249 4.0223	9.93845 - 9.93229 9.92612 9.91996 9.91379 9.90762 9.90146 9.89529 9.88912 9.88294
2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	1108.75 1108.36 1107.97 1107.59 1107.20 1106.81 1106.43 1106.04 1105.65	1.1895 - 5 1.1889 1.1882 1.1876 1.1869 1.1863 1.1856 1.1850 1.1843	9.89280 - 1 9.88742 9.88204 9.87666 9.87127 9.86589 9.86050 9.85511 9.84972 9.88432	1.6499 - 4 1.6539 1.6579 1.6619 1.6660 1.6700 1.6741 1.6782 1.6822	1.04933 + 0 1.05188 1.05443 1.05699 1.05956 1.06214 1.06473 1.06732 1.06992	4.0173 - 6 4.0148 4.0123 4.0098 4.0073 4.0048 4.0023 3.9997 3.9947	9.87677 - 9.87060 9.86442 9.85825 9.85207 9.84589 9.83971 9.83973 9.82735 9.82116
3000 3100 3200 3300 3400 3500 3600 3700 3800 3900	3000 3100 3200 3301 3401 3501 3601 3701 3801	1104.88 1104.49 1104.10 1103.71 1103.32 1102.93 1102.55 1102.16 1101.77 1101.38	1.1830 - 5 1.1824 1.1817 1.1811 1.1804 1.1798 1.1791 1.1785 1.1778	9.83893 - 1 9.83353 9.82213 9.82273 9.81733 9.81173 9.80652 9.80111 9.79570 9.79029	1.6905 - 4 1.6946 1.6987 1.7029 1.7071 1.7112 1.7154 1.7197 1.7239	1.07515 + 0 1.07778 1.08042 1.08576 1.08571 1.08837 1.09104 1.09371 1.09040	3.9922 - 6 3.9897 3.9872 3.9846 3.9821 3.9796 3.9771 3.9746 3.9720 3.9695	9.81498 - 9.80879 9.80260 9.77641 9.79022 9.78403 9.77784 9.77165 9.76545 9.75926
4000 4100 4200 4300 4300 4500 4500 4700 4800 4900	4001 4101 4201 4301 4401 4501 4601 4601 4801 4901	1100.99 1100.60 1100.21 1099.82 1099.43 1099.04 1098.65 1098.26 1097.87	1.1765 - 5 1.1759 1.1759 1.1752 1.1746 1.1739 1.1733 1.1726 1.1720 1.1713 1.1707	9.78488 - 1 9.77946 9.77405 9.76863 9.76321 9.75779 9.75236 9.74694 9.74151 9.73608	1.7324 - 4 1.7366 1.7409 1.7452 1.7455 1.7538 1.7581 1.7625 1.7668 1.7712	1.10179 + 0 1.10450 1.10722 1.10995 1.11268 1.11543 1.11818 1.12094 1.12371 1.12649	3.9670 - 6 3.96%5 3.9620 3.959% 3.9569 3.9584 3.9519 3.9493 3.9468 3.9443	9.75306 - 9.74066 9.73446 9.72826 9.72206 9.71585 9.70965 9.70344 9.69723
5000 5100 5200 5300 5400 5500 5600 5700 5800 5900	5001 5101 5201 5301 5401 5501 5502 5702 5802 5902	1097.09 1096.70 1096.31 1095.92 1095.53 1095.14 1094.75 1094.35 1093.96	1.1700 - 5 1.1694 1.1681 1.1674 1.1668 1.1668 1.1661 1.1654 1.1648	9.73065 - 1 9.72521 9.71978 9.71434 9.70890 9.70346 9.69802 9.69257 9.68713 9.68168	1.7756 - 4 1.7800 1.7888 1.7888 1.7932 1.7977 1.8022 1.8066 1.8111	1.12928 + 0 1.13207 1.13488 1.13769 1.14051 1.14334 1.14618 1.14903 1.15189 1.15476	3.9418 - 6 3.9392 3.9367 3.9342 3.9317 3.9291 3.9266 3.9241 3.9216 3.9190	9.69102 - 9.68481 9.67860 9.67239 9.66617 9.65976 9.65374 9.64753 9.64131 9.63509
6000 6100 6200 6300 6400 6500 6600 6700 6800 6900	6002 6102 6202 6302 6402 6502 6602 6702 6802 6902	1093.18 1092.79 1092.39 1092.00 1091.61 1091.22 1090.82 1090.43 1090.04	1.1635 - 5 1.1628 1.1622 1.1615 1.1609 1.1602 1.1595 1.1589 1.1582	9.67623 - 1 9.67078 9.66532 9.665987 9.65441 9.64895 9.64349 9.63803 9.63256 9.62710	1.8202 - 4 1.8247 1.8292 1.8338 1.8338 1.8430 1.84476 1.8522 1.8569 1.8615	1.15764 + 0 1.16052 1.16342 1.16632 1.16923 1.17216 1.17509 1.17803 1.18098 1.18394	3.9165 - 6 3.9140 3.9114 3.9089 3.9064 3.9038 3.9013 3.8988 3.8962 3.8937	9.62887 - 9.62264 9.61642 9.61019 9.60397 9.59774 9.59151 9.58528 9.57905 9.57282

TABLE VI.—Continued GEOMETRIC ALTITUDE, ENGLISH UNITS

		Sound	-	ALITIO			Γ	
Alti	tude	speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	onductivity
Z, ft	H, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k, BTU ft ^{-l} sec ^{-l} (°R) ^{-l}	k k _O
-1000 -900 -800 -700 -600 -500 -400 -300 -200 -100	-1000 -900 -800 -700 -600 -500 -400 -300 -200	1120.28 1119.90 1119.52 1119.13 1118.75 1118.37 1117.98 1117.60 1117.22 1116.83	1.2088 - 5 1.2082 1.2075 1.2069 1.2063 1.2056 1.2050 1.2043 1.2037	1.00533 + 0 1.00480 1.00427 1.00374 1.00320 1.00267 1.00214 1.00160 1.00107	1.5353 - 4 1.5389 1.5426 1.5463 1.5469 1.5536 1.5574 1.5611 1.5648	9.76438 - 1 9.78762 9.81093 9.83431 9.85777 9.88129 9.90489 9.92856 9.95230 9.97611	4.0924 - 6 4.0899 4.0874 4.0849 4.0824 4.0799 4.0775 4.0750 4.0725 4.0725	1.00614 + 0 1.00553 1.00492 1.00430 1.00369 1.00307 1.00246 1.00184 1.00123
100 200 300 400 500 600 700 800 900	100 200 300 400 500 600 700 800 900	1116.45 1116.07 1115.68 1115.30 1114.91 1114.53 1114.14 1113.76 1113.38 1112.99	1.2024 - 5 1.2018 1.2011 1.2005 1.1998 1.1992 1.1986 1.1979 1.1973 1.1966	1.00000 + 0 9.99466 - 1 9.98397 9.98397 9.97862 9.97327 9.96792 9.96256 9.95721 9.95185	1.5723 - 4 1.5761 1.5798 1.5836 1.5874 1.5913 1.5951 1.5989 1.6028	1.00000 + 0 1.00239 + 0 1.00480 1.00721 1.00963 1.01205 1.01448 1.01692 1.01937 1.02182	4.0674 - 6 4.0624 4.0529 4.0579 4.0549 4.0524 4.0524 4.0474 4.0474	1.00000 + 0 9.99385 - 1 9.98770 9.98155 9.975%0 9.96308 9.96308 9.95693 9.95077 9.94%61
1000 1100 1200 1300 1400 1500 1600 1700 1800	1000 1100 1200 1300 1400 1500 1600 1700 1800	1112.61 1112.22 1111.83 1111.45 1111.06 1110.68 1110.29 1109.91 1109.52 1109.13	1.1960 - 5 1.1953 1.1947 1.1940 1.1934 1.1927 1.1921 1.1915 1.1908 1.1902	9.94649 - 1 9.94113 9.93577 9.93041 9.92504 9.91967 9.91430 9.90893 9.90356 9.89819	1.6105 - 4 1.6183 1.6183 1.6222 1.6261 1.6300 1.6340 1.6379 1.6419	1.02429 + 0 1.02675 1.02923 1.03172 1.03421 1.03671 1.03922 1.04173 1.04425	4.0424 - 6 4.0399 4.0374 4.0324 4.0299 4.0274 4.0249 4.0224	9.93845 - 1 9.93229 9.92613 9.91996 9.91380 9.90763 9.90146 9.89530 9.88913 9.88276
2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	2000 2100 2200 2300 2400 2500 2600 2700 2800 2900	1108.75 1108.36 1107.97 1107.59 1107.20 1106.81 1106.43 1106.04 1105.65 1105.26	1.1895 - 5 1.1882 1.1876 1.1869 1.1863 1.1856 1.1856 1.1853	9.89281 - 1 9.88743 9.88205 9.87667 9.87129 9.86590 9.865503 9.85513 9.84974 9.84435	1.6499 - 4 1.65379 1.6579 1.6659 1.6659 1.6700 1.6741 1.6781 1.6822	1.04932 + 0 1.05187 1.05842 1.05956 1.06213 1.06472 1.06731 1.06991	4.0173 - 6 4.0148 4.0123 4.0098 4.0073 4.0048 4.0023 3.9997 3.9972	9.87678 - 1 9.87061 9.86444 9.85826 9.85208 9.84591 9.885973 9.83355 9.82737
3000 3100 3200 3300 3400 3500 3600 3700 3800 3900	3000 3100 3200 3299 3399 3499 3599 3699 3799 3899	1104.88 1104.49 1104.10 1103.71 1103.33 1102.94 1102.55 1102.16 1101.77 1101.38	1.1830 - 5 1.1824 1.1817 1.1811 1.1804 1.1798 1.1791 1.1795 1.1778	9.83895 - 1 9.83356 9.82816 9.82276 9.81736 9.81196 9.80115 9.80115 9.79574 9.79033	1.6905 - 4 1.6946 1.6987 1.7029 1.7070 1.7112 1.7154 1.7196 1.7238	1.07514 + 0 1.07777 1.08040 1.08304 1.08570 1.08835 1.09102 1.09370 1.09638 1.09907	3.9922 - 6 3.9897 3.9872 3.9847 3.9821 3.9796 3.9771 3.9746 3.9721 3.9695	9.81500 - 1 9.80882 9.80263 9.79645 9.79026 9.78407 9.77788 9.77789 9.77550 9.75550
4000 4100 4200 4300 4400 4500 4600 4700 4800	3999 4099 4199 4299 4399 4499 4599 4699 4699	1100.99 1100.60 1100.21 1099.83 1099.44 1099.05 1098.66 1098.27 1097.88 1097.49	1.1765 - 5 1.1759 1.1752 1.1746 1.1739 1.1733 1.1726 1.1720 1.1713	9.78492 - 1 9.77951 9.77409 9.76868 9.76326 9.75784 9.75242 9.74699 9.74157 9.73614	1.7323 - 4 1.7366 1.7409 1.7451 1.7454 1.7537 1.7581 1.7624 1.7668	1.10177 + 0 1.10448 1.10720 1.10992 1.11266 1.11540 1.11815 1.12091 1.12368 1.12368	3.9670 - 6 3.9645 3.9620 3.9595 3.9589 3.9544 3.9519 3.9494 3.9469	9.75311 - 1 9.74691 9.74071 9.73452 9.72212 9.71592 9.70971 9.70351 9.69730
5000 5100 5200 5300 5400 5500 5600 5700 5800 5900	4999 5099 5199 5299 5399 5499 5598 5698 5798 5898	1097.10 1096.71 1096.32 1095.92 1095.93 1095.14 1094.75 1094.36 1093.97 1093.58	1.1700 - 5 1.1694 1.1687 1.1681 1.1674 1.1668 1.1661 1.1655 1.1648 1.1641	9.73071 - 1 9.72528 9.71985 9.71985 9.71941 9.70354 9.69810 9.69266 9.68722 9.68177	1.7755 - 4 1.7799 1.7843 1.7887 1.7932 1.7976 1.8021 1.8066 1.8111	1.12924 + 0 1.13204 1.13484 1.13765 1.14047 1.14330 1.14614 1.14899 1.15185	3.9418 - 6 3.9393 3.9368 3.9342 3.9317 3.9292 3.9266 3.9241 3.9216 3.9191	9.69110 - 1 9.68489 9.67868 9.67247 9.66626 9.66005 9.65384 9.64762 9.64141 9.63519
6000 6100 6200 6300 6400 6500 6600 6700 6800 6900	5998 6098 6198 6298 6398 6498 6598 6698 6798 6898	1093.19 1092.79 1092.40 1092.01 1091.62 1091.22 1090.83 1090.44 1090.05 1089.65	1.1635 - 5 1.1628 1.1622 1.1615 1.1609 1.1602 1.1596 1.1589 1.1582 1.1576	9.67632 - 1 9.67087 9.66542 9.65597 9.65452 9.64906 9.64360 9.63815 9.63268 9.62722	1.8201 - 4 1.8246 1.8292 1.8337 1.8383 1.8429 1.8475 1.8521 1.8568	1.15759 + 0 1.16047 1.16336 1.16627 1.16918 1.17210 1.17503 1.17797 1.18091 1.18387	3.9165 - 6 3.9140 3.9115 3.9089 3.9064 3.9039 3.9014 3.8988 3.8963 3.8963	9.62897 - 1 9.62275 9.61653 9.61031 9.60409 9.59787 9.59164 9.58542 9.57919

TABLE ▼I.—Continued

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

H, ft Z, ft	C _s ,						
	ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η, ft² sec⁻¹	$\frac{\eta}{\eta_0}$	k, BTU ft ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
7000 7002 7100 7102 7200 7202 7300 7303 7400 7403 7500 7503 7600 7603 7700 7703 7800 7803 7900 7903	1089.25 1088.86 1088.46 1088.07 1087.68 1087.28 1086.89 1086.49 1086.10 1085.71	1.1569 - 5 1.1563 1.1556 1.1549 1.1543 1.1530 1.1530 1.1523 1.1516	9.62163 - 1 9.61616 9.61068 9.60521 9.59973 9.59426 9.58878 9.58329 9.57781 9.57233	1.8662 - 4 1.8709 1.8756 1.8803 1.8850 1.8898 1.8945 1.8945 1.8993 1.9041	1.18691 + 0 1.18989 1.19288 1.19587 1.19888 1.20190 1.20492 1.20796 1.21101 1.21406	3.8912 - 6 3.88861 3.88861 3.8810 3.8785 3.8759 3.8759 3.8734 3.8709	9.56659 - 1 9.56035 9.55512 9.554188 9.54168 9.533540 9.52916 9.52292 9.51668 9.51043
8000 8003 8100 8103 8200 8203 8300 8403 8400 8403 8500 8503 8600 8604 8700 8704 8800 8804	1085.31 1084.92 1084.52 1084.13 1083.73 1083.33 1082.94 1082.54 1082.15 1081.75	1.1503 - 5 1.1497 1.1490 1.1483 1.1477 1.1470 1.1464 1.1457 1.1450	9.56684 - 1 9.56135 9.55586 9.55036 9.554887 9.53387 9.53387 9.522837 9.52287	1.9137 - 4 1.9185 1.9234 1.9283 1.9331 1.9380 1.9429 1.9479 1.9528	1.21713 + 0 1.22020 1.22329 1.22638 1.22949 1.23261 1.23573 1.23887 1.24201 1.24517	3.8658 - 6 3.8632 3.8607 3.8582 3.8556 3.8555 3.8555 3.8480 3.8454 3.8454	9.50%19 - 1 9.4976% 9.49769 9.485% 9.47919 9.47669 9.46669 9.46683 9.45%18 9.44792
9000 9004 9100 9204 9300 9204 9300 9304 9400 9404 9500 9504 9400 9604 9700 9705 9800 9805 9900 9905	1081.36 1080.96 1080.56 1080.17 1079.77 1079.37 1078.97 1078.58 1078.18 1077.78	1.1437 - 5 1.1431 1.1424 1.1417 1.1411 1.1404 1.1397 1.1391 1.1384 1.1377	9.51186 - 1 9.50635 9.50084 9.49533 9.48982 9.48430 9.47878 9.47326 9.46774 9.46222	1.9628 - 4 1.9678 1.9778 1.9778 1.9828 1.9879 1.9930 1.9981 2.0032 2.0083	1.24833 + 0 1.25151 1.25470 1.25789 1.26110 1.26432 1.26755 1.27078 1.27403 1.27729	3.8403 - 6 3.8378 3.8353 3.8327 3.8322 3.8276 3.8251 3.8225 3.8200 3.8174	9.44166 - 1 9.42914 9.42288 9.41662 9.41636 9.40809 9.39783 9.39756 9.38529
10000 10005 10100 10105 10200 10205 10300 10305 10400 10405 10500 10505 10600 10605 10700 10806 10900 10906	1077.39 1076.99 1076.59 1076.19 1075.79 1075.39 1075.00 1074.60 1074.20 1073.80	1.1371 - 5 1.1368 1.1358 1.1351 1.1344 1.1338 1.1331 1.1324 1.1321	9.45669 - 1 9.45117 9.44564 9.44011 9.43457 9.423904 9.42350 9.41796 9.41242 9.40688	2.0134 - 4 2.0186 2.0238 2.0290 2.0342 2.0394 2.0446 2.0499 2.0552 2.0605	1.28056 + 0 1.28384 1.28713 1.29044 1.29375 1.29707 1.30041 1.30375 1.30711 1.31048	3.8149 - 6 3.8123 3.8098 3.8072 3.8047 3.8021 3.7970 3.7970 3.7944 3.7919	9.37902 - 1 9.37275 9.36648 9.36020 9.35393 9.34765 9.34138 9.33510 9.32882 9.32254
11000 11006 11100 11106 11200 11206 11300 11306 11400 11506 11500 11506 11600 11606 11700 11707 11800 11807	1073.40 1073.00 1072.60 1072.20 1071.80 1071.40 1071.00 1070.60 1070.20 1069.80	1.1304 - 5 1.1298 1.1291 1.1284 1.1278 1.1271 1.1264 1.1251 1.1244	9.40133 - 1 9.39579 9.39024 9.38469 9.37914 9.37358 9.36803 9.36247 9.35247 9.35135	2.0658 - 4 2.0711 2.0755 2.0818 2.0872 2.0926 2.0980 2.1035 2.1089 2.1144	1.31386 + 0 1.31725 1.32065 1.32406 1.32748 1.33092 1.33436 1.33782 1.34477	3.7893 - 6 3.7888 3.7842 3.7817 3.7791 3.7766 3.7740 3.7714 3.7689	9.31625 - 1 9.30997 9.30369 9.29740 9.29111 9.28483 9.27854 9.27225 9.26595 9.25966
12000 12007 12100 12107 12200 12207 12300 12307 12400 12407 12500 12507 12600 12608 12700 12708 12800 12808 12900 12908	1069.40 1069.00 1068.60 1068.20 1067.80 1067.40 1066.99 1066.59 1066.19	1.1237 - 5 1.1231 1.1224 1.1217 1.1211 1.1204 1.1197 1.1191 1.1184 1.1177	9.34578 - 1 9.34022 9.33465 9.32908 9.32351 9.31793 9.31236 9.30678 9.30120 9.29562	2-1199 - 4 2-1254 2-1309 2-1365 2-1420 2-1476 2-1532 2-1588 2-1645 2-1701	1.34826 + 0 1.35176 1.35528 1.35880 1.36234 1.36589 1.36945 1.37303 1.377661 1.38021	3.7638 - 6 3.7586 3.7586 3.7581 3.7585 3.7550 3.7484 3.7488 3.7483 3.7493	9.25337 - 1 9.24707 9.24077 9.23848 9.22818 9.22188 9.21558 9.20927 9.202077
13000 13008 13100 13108 13200 13208 13300 13308 13400 13409 13500 13509 13600 13609 13700 13709 13800 13809 13900 13909	1065.39 1064.98 1064.58 1064.18 1063.78 1063.37 1062.97 1062.57 1062.16 1061.76	1.1170 - 5 1.1164 1.1157 1.1150 1.1144 1.1137 1.1130 1.1123 1.1117	9.29004 - 1 9.28445 9.27886 9.27327 9.26768 9.26209 9.25649 9.25690 9.24530 9.23970	2.1758 - 4 2.1815 2.1872 2.1872 2.1987 2.2044 2.2102 2.2160 2.2219 2.2277	1.38382 + 0 1.38744 1.39107 1.39107 1.39837 1.40204 1.40572 1.40942 1.41312 1.41684	3.7381 - 6 3.7356 3.7350 3.7330 3.7370 3.7279 3.7253 3.7227 3.7202 3.7176 3.7150	9.19036 - 1 9.18405 9.17774 9.177143 9.16512 9.15881 9.15249 9.14618 9.13986 9.13354
14000 14009 14100 14110 14200 14210 14300 14310 14500 14510 14500 14510 14600 14710 14800 14811 14900 14911	1061.36 1060.95 1060.55 1060.14 1059.74 1059.34 1058.93 1058.53 1058.12	1.1103 - 5 1.1096 1.1090 1.1083 1.1076 1.1069 1.1063 1.1056 1.1049	9.23409 - 1 9.22849 9.22288 9.21727 9.21166 9.20605 9.20043 9.19482 9.18920 9.18357	2.2336 - 4 2.2375 2.2454 2.2513 2.2572 2.2632 2.2632 2.2692 2.2752 2.2812 2.2873	1.42057 + 0 1.42432 1.42807 1.43184 1.43562 1.43942 1.4323 1.44704 1.45088 1.45472	3.7125 - 6 3.7099 3.7073 3.7047 3.7022 3.6996 3.6990 3.6944 3.6919 3.6893	9.12723 - 1 9.11458 9.10826 9.10194 9.09561 9.08929 9.08296 9.07663 9.07030

	_ 	Causa		RIC ALTITU				
Alti	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	conductivity
Z, ft	H, ft	C _s , ft sec ⁻¹	μ , Ib ft sec	$\frac{\mu}{\mu_0}$	η, ft² sec⁻¹	$\frac{\eta}{\eta_0}$	k, BTUft ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
7000 7100 7200 7300 7300 7500 7600 7700 7800 7900	6998 7098 7198 7199 7297 7397 7497 7597 7697 7797 7897	1089.26 1088.87 1088.47 1088.08 1087.69 1087.29 1086.90 1086.51 1086.11	1.1569 - 5 1.1563 1.1556 1.1550 1.1543 1.1536 1.1530 1.1523 1.1517	9.62176 - 1 9.61629 9.61082 9.60535 9.59988 9.59440 9.58893 9.558345 9.57797	1.6661 - 4 1.8708 1.8754 1.8802 1.8849 1.8896 1.8994 1.8991 1.9039	1.18684 + 0 1.18982 1.19280 1.19580 1.19880 1.20182 1.20484 1.20787 1.21397	3.8912 - 6 3.8887 3.88862 3.8836 3.8811 3.8765 3.8760 3.8735 3.8735 3.8709	9.56673 - 1 9.56050 9.55427 9.55428 9.54180 9.53557 9.52933 9.52310 9.51686 9.51062
8000 8100 8200 8300 8400 8500 8600 8700 8800	7997 8097 8197 8297 8397 8497 8596 8696 8796	1085.32 1084.93 1084.53 1084.14 1083.74 1083.35 1082.95 1082.95 1082.16 1081.77	1.1503 - 5 1.1490 1.1490 1.1484 1.1477 1.1470 1.1457 1.1451 1.1444	9.56701 - 1 9.56152 9.55603 9.55055 9.54506 9.53956 9.53407 9.52857 9.52308 9.51758	1.9136 - 4 1.9184 1.9232 1.9281 1.9330 1.9379 1.9428 1.9477 1.9526	1.21703 + 0 1.22011 1.22319 1.22628 1.22938 1.23550 1.23562 1.23875 1.24189 1.24505	3.8659 - 6 3.8633 3.8608 3.8582 3.8557 3.8532 3.8532 3.8481 3.8481 3.8455	9.50438 - 1 9.40914 9.409189 9.48565 9.47940 9.47316 9.46691 9.46066 9.45441 9.44816
9000 9100 9200 9300 9400 9500 9600 9700 9800 9900	8996 9096 9196 9296 9396 9496 9596 9695 9795	1081.37 1080.97 1080.58 1080.18 1079.79 1079.39 1078.99 1078.60 1078.20	1.1437 - 5 1.1431 1.1424 1.1418 1.1411 1.1404 1.1398 1.1391 1.1384 1.1378	9.51207 - 1 9.50657 9.50107 9.49556 9.49005 9.48454 9.47903 9.47351 9.46800 9.46248	1.9626 - 4 1.9676 1.9726 1.9776 1.9826 1.9877 1.9927 1.9978 2.0029	1.24821 + 0 1.25138 1.25457 1.25776 1.26096 1.26418 1.26740 1.27388 1.27714	3.8404 - 6 3.8379 3.8354 3.8328 3.8303 3.8277 3.8225 3.8226 3.8226 3.8201 3.8175	9.44191 - 1 9.43565 9.42940 9.42314 9.41689 9.41063 9.40437 9.39811 9.39185 9.38558
10000 10100 10200 10300 10400 10500 10600 10700 10800 10900	9995 10095 10195 10295 10395 10495 10595 10695 10794	1077.40 1077.01 1076.61 1076.21 1075.81 1075.42 1075.02 1074.62 1074.22 1073.82	1.1371 - 5 1.1368 1.1358 1.1351 1.1345 1.1338 1.1331 1.1325 1.1318	9.45696 - 1 9.45184 9.44591 9.44591 9.43486 9.42933 9.42380 9.41827 9.41273 9.40719	2.0132 - 4 2.0183 2.0235 2.0235 2.0387 2.0391 2.0444 2.0496 2.0549 2.0549	1.28041 + 0 1.28368 1.28697 1.29027 1.29358 1.29690 1.30023 1.30357 1.30692 1.31029	3.8150 - 6 3.8124 3.8099 3.8073 3.8048 3.8022 3.7997 3.7971 3.7946 3.7920	9.37932 - 1 9.37306 9.36679 9.36052 9.35425 9.34798 9.34171 9.33544 9.32917 9.32289
11000 11100 11200 11300 11400 11500 11600 11700 11800	10994 11094 11194 11294 11394 11494 11594 11693 11793 11893	1073.42 1073.02 1072.63 1072.23 1071.83 1071.43 1071.03 1070.63 1070.23 1069.83	1.1305 - 5 1.1298 1.1291 1.1285 1.1278 1.1271 1.1265 1.1258 1.1251	9.40166 - 1 9.39612 9.39057 9.38503 9.37948 9.37394 9.36283 9.36283 9.35283 9.35172	2.0655 - 4 2.0708 2.0761 2.0815 2.0849 2.0923 2.0977 2.1031 2.1086 2.1140	1.31366 + 0 1.31705 1.32044 1.32385 1.32727 1.33070 1.33414 1.33759 1.34106 1.34453	3.7895 - 6 3.7809 3.7844 3.7818 3.7793 3.7746 3.7742 3.7716 3.7690 3.7665	9.31662 - 1 9.31034 9.30406 9.29779 9.29151 9.28522 9.27894 9.27266 9.26637 9.26037
12000 12100 12200 12300 12400 12500 12600 12700 12800 12900	11993 12093 12193 12293 12393 12493 12493 12592 12692 12692	1069.43 1069.03 1068.63 1068.23 1067.83 1067.43 1067.02 1066.62 1066.22 1065.82	1.1238 - 5 1.1231 1.1225 1.1218 1.1211 1.1204 1.1198 1.1191 1.1184 1.1178	9.34617 - 1 9.34061 9.33505 9.32948 9.32392 9.31835 9.31278 9.30721 9.30164 9.29606	2.1195 - 4 2.1250 2.1305 2.1361 2.1416 2.1472 2.1528 2.1584 2.1640 2.1697	1.34802 + 0 1.35152 1.35503 1.35855 1.36208 1.36562 1.36918 1.37275 1.37633 1.37992	3.7639 - 6 3.7618 3.7588 3.7563 3.7557 3.7511 3.7486 3.7460 3.7465 3.7409	9.25380 - 1 9.24751 9.24122 9.23493 9.22864 9.22235 9.21605 9.20976 9.20346 9.19717
13000 13100 13200 13300 13400 13500 13600 13700 13800 13900	12992 13092 13192 13292 13391 13491 13591 13691 13791	1065.42 1065.02 1064.62 1064.21 1063.81 1063.41 1063.01 1062.60 1062.20 1061.80	1.1171 - 5 1.1164 1.1158 1.1151 1.1144 1.1137 1.1131 1.1124 1.1117	9.29049 - 1 9.28491 9.27933 9.27375 9.26816 9.26258 9.25259 9.25140 9.24581 9.24021	2.1753 - 4 2.1810 2.1867 2.1924 2.1982 2.2039 2.2097 2.2155 2.2213 2.2272	1.38352 + 0 1.38714 1.39077 1.39441 1.39806 1.40172 1.40540 1.40908 1.41278	3.7383 - 6 3.7358 3.7332 3.7306 3.7281 3.7255 3.7230 3.7204 3.7178 3.7153	9.19087 - 1 9.18457 9.17827 9.17827 9.16566 9.15936 9.15936 9.159305 9.14675 9.14044 9.13413
14000 14100 14200 14300 14500 14500 14600 14700 14800 14900	13991 14090 14190 14290 14390 14490 14590 14690 14790 14889	1061.39 1060.99 1060.59 1060.18 1059.78 1059.38 1058.97 1058.57 1058.16 1057.76	1.1104 - 5 1.1090 1.1084 1.1070 1.1063 1.1057 1.1050 1.1043	9.23462 - 1 9.22902 9.22342 9.21782 9.21222 9.20661 9.20101 9.19540 9.18979 9.18417	2.2330 - 4 2.2389 2.2448 2.2507 2.2566 2.2626 2.2686 2.2746 2.2806 2.2866	1.42022 + 0 1.42396 1.42771 1.43147 1.43525 1.43904 1.44284 1.44665 1.45047 1.45431	3.7127 - 6 3.7101 3.7076 3.7050 3.7024 3.6999 3.6973 3.6947 3.6941 3.6896	9.12782 - 1 9.12151 9.11519 9.10888 9.10257 9.09625 9.08963 9.08361 9.07730 9.07098

TABLE ▼I.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	lude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
H, ft	Z, ft	C _s ,	μ , lb ft sec sec μ	$\frac{\mu}{\mu_0}$	η, ft² sec⁻¹	$\frac{\eta}{\eta_0}$	k , BTU ft ^{-t} sec ^{-t} (^O R) ⁻¹	k k _O
15000 15100 15200 15300 15400 15500 15600 15700 15800 15900	15011 15111 15211 15311 15311 15411 15512 15612 15712 15812 15912	1057.31 1056.91 1056.50 1056.10 1055.69 1055.28 1054.88 1054.47 1054.06	1.1036 - 5 1.1029 1.1022 1.1015 1.1009 1.1002 1.0995 1.0988 1.0981	9.17795 - 1 9.17233 9.16670 9.16107 9.15544 9.14981 9.14417 9.13853 9.13290 9.12725	2.2933 - 4 2.2994 2.3055 2.3117 2.3178 2.3240 2.3304 2.3364 2.3426 2.3489	1.45858 + 0 1.46245 1.46634 1.47024 1.47415 1.47807 1.48201 1.48596 1.48992 1.49390	3.6867 - 6 3.6841 3.6816 3.6790 3.6764 3.6738 3.6713 3.6687 3.6661	9.06397 - 1 9.05764 9.05131 9.04497 9.03863 9.03230 9.02596 9.01962 9.01328 9.00694
16000 16100 16200 16300 16400 16500 16500 16700 16800 16900	16012 16112 16213 16313 16413 16513 16513 16713 16814 16914	1053-25 1052-84 1052-44 1052-03 1051-62 1051-21 1050-81 1050-40 1049-99 1049-58	1.0968 - 5 1.0961 1.0958 1.0948 1.0941 1.0934 1.0927 1.0920 1.0914	9.12161 - 1 9.11597 9.11032 9.10467 9.09902 9.09337 9.08771 9.08205 9.07639 9.07073	2.3551 - 4 2.3614 2.3678 2.3741 2.3805 2.3868 2.3997 2.4061 2.4126	1.49789 + 0 1.50190 1.50592 1.50595 1.51399 1.51805 1.52213 1.52621 1.53032 1.53443	3.6609 - 6 3.6584 3.6558 3.65532 3.6506 3.6480 3.6455 3.6429 3.6403 3.6377	9.00059 - 1 8.99425 8.98790 8.98156 8.97521 8.96886 8.96251 8.95616 8.94980 8.94345
17000 17100 17200 17300 17400 17500 17600 17700 17800 17900	17014 17114 17214 17314 17415 17515 17615 17715 17815	1049.17 1048.77 1048.36 1047.95 1047.54 1047.13 1046.72 1046.31 1045.90 1045.49	1.0900 - 5 1.0893 1.0886 1.0879 1.0873 1.0859 1.0859 1.0852 1.0845	9.06507 - 1 9.05940 9.05374 9.04807 9.04807 9.03672 9.03105 9.02537 9.01969 9.01401	2.4191 - 4 2.4256 2.4321 2.4387 2.4519 2.4519 2.4565 2.4652 2.4718 2.4785	1.53856 + 0 1.54270 1.54686 1.55103 1.55522 1.555942 1.56364 1.56787 1.57211	3.6351 - 6 3.6325 3.6299 3.6274 3.6228 3.6222 3.6196 3.6170 3.6144 3.6118	8.93709 - 1 8.93074 8.92438 8.91802 8.911166 8.90530 8.89894 8.89257 8.88621 8.87984
18000 18100 18200 18300 18400 18500 18600 18700 18800 18900	18016 18116 18216 18316 18416 18516 18617 18717 18817	1045.08 1044.67 1044.26 1043.85 1043.44 1043.03 1042.62 1042.21 1041.80 1041.39	1.0832 - 5 1.0825 1.0818 1.0811 1.0804 1.0707 1.0791 1.0784 1.0777	9.00832 - 1 9.00264 8.99495 8.99126 8.98557 8.97787 8.97418 8.96848 8.96278	2.4853 - 4 2.4920 2.4988 2.5056 2.5124 2.5192 2.5261 2.5329 2.5329 2.5368	1.58064 + 0 1.58493 1.58924 1.59355 1.59789 1.60223 1.60660 1.61098 1.61537	3.6092 - 6 3.6064 3.6041 3.6015 3.5989 3.5963 3.5937 3.5911 3.5885 3.5859	8.873%7 - 1 8.86710 8.86073 8.85%36 8.85%36 8.84799 8.8162 8.83524 8.82549 8.82649
19000 19100 19200 19300 19400 19500 19600 19700 19800	19017 19118 19218 19318 19418 19518 19618 19719 19819	1040.97 1040.56 1040.15 1039.74 1039.33 1038.91 1038.50 1038.09 1037.68 1037.26	1.0763 - 5 1.0756 1.0749 1.0743 1.0736 1.0729 1.0722 1.0715 1.0708	8.95137 - 1 8.94567 8.93996 8.93425 8.92854 8.92282 8.91711 8.91139 8.90567 8.89994	2.5537 - 4 2.56077 2.5677 2.5748 2.5818 2.5889 2.5960 2.6031 2.6103 2.6174	1.62%20 + 0 1.6286% 1.63310 1.63757 1.64205 1.6455 1.65107 1.65560 1.66015 1.66472	3.5833 - 6 3.5807 3.5781 3.5755 3.5729 3.5703 3.5677 3.5651 3.5625 3.5599	8.80973 ~ 1 8.80335 8.79696 8.79058 8.76420 8.77781 8.77142 8.76503 8.75864 8.75225
20000 20100 20200 20300 20400 20500 20600 20700 20800 20900	20019 20119 20220 20320 20420 20520 20620 20721 20821 20921	1036-85 1036-44 1036-02 1035-61 1035-20 1034-78 1034-37 1033-95 1033-54 1033-12	1.069% - 5 1.0688 1.0681 1.067% 1.0667 1.0660 1.0653 1.0646 1.0639	8.89422 - 1 8.88849 8.88276 8.87703 8.87703 8.8556 8.8556 8.85502 8.85408 8.84260	2.6246 - 4 2.6319 2.6391 2.6464 2.6537 2.6610 2.6684 2.6758 2.6832 2.6906	1.66930 + 0 1.67390 1.67851 1.68314 1.68778 1.69712 1.70182 1.70653 1.71126	3.5573 - 6 3.5547 3.5521 3.5495 3.5443 3.5443 3.5417 3.5391 3.5365 3.5339	8.74586 - 1 8.73947 8.73307 8.72668 8.72028 8.71388 8.70748 8.70108 8.69468 8.68828
21000 21100 21200 21300 21400 21500 21600 21700 21800 21900	21021 21121 21222 21322 21422 21522 21622 21723 21823 21923	1032.71 1032.29 1031.88 1031.46 1031.05 1030.63 1030.22 1029.80 1029.38 1028.97	1.0626 - 5 1.0619 1.0612 1.0605 1.0598 1.0591 1.0584 1.0577 1.0570	8.83685 - 1 8.83111 8.82536 8.81960 8.81385 8.80809 8.80233 8.79657 8.79081 8.78505	2.6981 - 4 2.7056 2.7131 2.7206 2.7282 2.7358 2.7434 2.7510 2.7587 2.7664	1.71600 + 0 1.72076 1.72554 1.73033 1.73515 1.73997 1.74482 1.74968 1.75456	3.5313 - 6 3.5287 3.5261 3.5235 3.5209 3.5183 3.5157 3.5131 3.5104 3.5078	8.68187 - 1 8.67547 8.66906 8.66265 8.65624 8.64983 8.64342 8.63701 8.63059 8.62418
22000 22100 22200 22300 22400 22500 22600 22700 22800 22900	22023 22123 22224 22324 22424 22424 22625 22725 22825 22925	1028.55 1028.13 1027.72 1027.30 1026.88 1026.47 1026.05 1025.63 1025.21	1.0556 - 5 1.0549 1.0542 1.0535 1.0529 1.0522 1.0515 1.0508 1.0501	8.77928 - 1 8.77351 8.76774 8.76197 8.75619 8.75041 8.71463 8.73885 8.73307 8.72728	2.7741 - 4 2.7819 2.7819 2.7975 2.8053 2.8153 2.8211 2.8290 2.8370 2.8449	1.76438 + 0 1.76931 1.77426 1.77923 1.78421 1.78922 1.79424 1.79928 1.80433 1.80941	3.5052 - 6 3.5026 3.5000 3.4974 3.4948 3.4922 3.4896 3.4869 3.4843 3.4817	8.61776 - 1 8.61134 8.60492 8.59850 8.59208 8.59266 8.57723 8.57281 8.56638 8.55995

<u> </u>		Sound	r 	RIC ALTITU	<u> </u>			
Altit	lude	speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	onductivity ——————
Z, ft	H, ft	C _s , ft sec ⁻¹	μ , lb ft sec	$\frac{\mu}{\mu_0}$	η, ft² sec-'	$\frac{\eta}{\eta_0}$	k , BTU ft ^{-l} sec ^{-l} (ºR) ^{-l}	k k _O
15000 15100 15200 15300 15300 15400 15500 15700 15700 15800	14989 15089 15189 15389 15389 15488 15688 15688 15688	1057.36 1056.95 1056.55 1056.14 1055.74 1055.33 1054.92 1054.52 1054.11 1053.71	1.1036 - 5 1.1036 - 5 1.1023 1.1016 1.1009 1.1003 1.0996 1.0989 1.0982 1.0976	9.17856 - 1 9.17294 9.16732 9.16170 9.15608 9.15046 9.14483 9.13920 9.13357 9.12794	2.2927 - 4 2.2988 2.3049 2.3110 2.3171 2.3233 2.3294 2.3356 2.3419 2.3481	1.45817 + 0 1.46203 1.46591 1.46980 1.47370 1.47762 1.48155 1.48549 1.48945	3.6870 - 6 3.6844 3.6819 3.6793 3.6767 3.6741 3.6716 3.6690 3.6664 3.6638	9.06465 - 1 9.05833 9.05201 9.04568 9.03935 9.03933 9.02670 9.02037 9.01404 9.00771
16000 16100 16200 16300 16400 16500 16600 16700 16800 16900	15988 16088 16187 16287 16387 16487 16587 16687 16786 16886	1053.30 1052.89 1052.49 1052.08 1051.68 1051.27 1050.86 1050.45 1050.05 1049.64	1.0969 - 5 1.0962 1.0955 1.0948 1.0942 1.0935 1.0928 1.0921 1.0914	9.12230 - 1 9.11667 9.11103 9.10539 9.09975 9.099410 9.08846 9.08281 9.07716	2.3544 - 4 2.36070 2.3670 2.3733 2.3796 2.3860 2.3924 2.3988 2.4053 2.4117	1.49740 + 0 1.50140 1.50541 1.50943 1.51347 1.51752 1.52159 1.52567 1.52976 1.53387	3.6613 - 6 3.6587 3.65861 3.6535 3.6510 3.6484 3.6458 3.6458 3.6406 3.6406	9.00137 - 1 8.99504 8.98870 8.98237 8.97603 8.96969 8.96335 8.96335 8.95701 8.95066 8.94432
17000 17100 17200 17300 17400 17500 17600 17700 17800 17900	16986 17086 17186 17286 17385 17485 17585 17685 17785	1049.23 1048.82 1048.42 1048.01 1047.60 1047.19 1046.78 1046.37 1045.96 1045.56	1.0901 - 5 1.0894 1.0887 1.0887 1.0867 1.0867 1.0860 1.0853 1.0840	9.06585 - 1 9.06020 9.05454 9.04888 9.04322 9.03755 9.03189 9.02622 9.02055 9.01488	2.4182 - 4 2.4247 2.4312 2.4378 2.4443 2.4575 2.4575 2.4642 2.4708 2.4775	1.53799 + 0 1.54212 1.54627 1.55044 1.55461 1.55880 1.56301 1.56723 1.57147	3.6355 - 6 3.6329 3.6327 3.6277 3.6251 3.6226 3.6200 3.6174 3.6148 3.6122	8.93797 - 1 8.93163 8.92528 8.91893 8.91258 8.90623 8.80988 8.80988 8.80717 8.88082
18000 18100 18200 18300 18400 18500 18600 18700 18800	17984 18084 18184 18284 18384 18483 18583 18683 18783	1045.15 1044.74 1044.33 1043.92 1043.51 1043.10 1042.69 1042.28 1041.87 1041.46	1.0833 - 5 1.0826 1.0819 1.0819 1.0805 1.0799 1.0792 1.0785 1.0778	9.00921 - 1 9.00353 8.99785 8.99217 8.98649 8.98881 8.97512 8.96944 8.96375 8.95805	2.4842 - 4 2.49077 2.5045 2.5113 2.5181 2.5249 2.5318 2.5387 2.5456	1.57998 + 0 1.58426 1.58855 1.59286 1.59718 1.60152 1.60587 1.61024 1.61462 1.61902	3.6096 - 6 3.6095 3.6045 3.6019 3.5993 3.5967 3.5941 3.5915 3.5889 3.5889	8.87446 - 1 8.86810 8.86174 8.85538 8.84902 8.84266 8.83630 8.82993 8.822557 8.81720
19000 19100 19200 19300 19400 19500 19600 19700 19800	18983 19083 19182 19282 19382 19482 19582 19681 19781	1041.05 1040.63 1040.22 1039.81 1039.40 1038.99 1038.58 1038.17 1037.75 1037.34	1.0764 - 5 1.0758 1.0751 1.0751 1.0744 1.0737 1.0730 1.0723 1.0716 1.0710	8.95236 - 1 8.94657 8.94097 8.93527 8.92557 8.92386 8.91816 8.91245 8.90674	2.5525 - 4 2.5595 2.5665 2.5735 2.5876 2.5876 2.5947 2.6018 2.6089 2.6161	1.62344 + 0 1.62786 1.63231 1.63577 1.64124 1.64573 1.65024 1.65476 1.65930 1.66385	3.5838 - 6 3.5812 3.5786 3.5760 3.5734 3.5708 3.5682 3.5686 3.5630 3.5630	8.81083 - 1 8.80446 8.79809 8.79172 8.76535 8.77897 8.77260 8.76622 8.75984 8.75347
20000 20100 20200 20300 20400 20500 20600 20700 20800 20900	19981 20081 20180 20280 20380 20480 20580 20679 20779 20879	1036.93 1036.52 1036.10 1035.69 1035.28 1034.86 1034.45 1034.04 1033.62 1033.21	1.0696 - 5 1.0689 1.0682 1.0675 1.0668 1.0661 1.0655 1.0648 1.0641	8.89532 - 1 8.88960 8.88388 8.87816 8.87244 8.86672 8.86099 8.85526 8.84953 8.84380	2.6233 - 4 2.6305 2.6377 2.6450 2.6523 2.6596 2.6669 2.6743 2.6891	1.66842 + 0 1.67300 1.67761 1.68222 1.68686 1.69617 1.70085 1.70555	3.5578 - 6 3.5552 3.5526 3.5500 3.5474 3.5449 3.5423 3.5397 3.5371 3.5371	8.74709 - 1 8.74071 8.73432 8.72794 8.72156 8.71517 8.70878 8.70240 8.669601 8.668962
21000 21100 21200 21300 21400 21500 21600 21700 21800 21900	20979 21079 21178 21278 21378 21478 21578 21677 21677 21877	1032.80 1032.38 1031.97 1031.55 1031.14 1030.72 1030.31 1029.89 1029.48 1029.06	1.0627 - 5 1.0620 1.0613 1.0606 1.0599 1.0592 1.0586 1.0579 1.0572	8.83807 - 1 8.83233 8.82659 8.82659 8.81511 8.80937 8.80362 8.79787 8.79212 8.78637	2.6965 - 4 2.7040 2.7115 2.7190 2.7265 2.7341 2.7417 2.7493 2.7570 2.7646	1.71500 + 0 1.71974 1.72451 1.72929 1.73409 1.73890 1.74374 1.74858 1.75345	3.5319 - 6 3.5293 3.5267 3.5241 3.5215 3.5189 3.5162 3.5136 3.5110 3.5084	8.68322 - 1 8.67683 8.67044 8.66404 8.65765 8.65125 8.65125 8.63845 8.63205 8.62565
22000 22100 22200 22300 22400 22500 22600 22700 22800 22900	21977 22077 22176 22276 22376 22476 22576 22675 22675 22875	1028.65 1028.23 1027.82 1027.40 1026.98 1026.57 1026.15 1025.73 1025.32 1024.90	1.0558 - 5 1.0551 1.0544 1.0537 1.0530 1.0523 1.0516 1.0509 1.0509	8.78062 - 1 8.77486 8.76910 8.76334 8.75758 8.75181 8.74605 8.74028 8.73451 8.72873	2.7723 - 4 2.7801 2.7878 2.7956 2.8034 2.8113 2.8192 2.8271 2.8271 2.8350 2.8429	1.76323 + 0 1.76815 1.77309 1.77804 1.78301 1.78800 1.79301 1.79803 1.80307 1.80813	3.5058 - 6 3.5032 3.5006 3.4980 3.4954 3.4928 3.4902 3.4876 3.4850 3.48850 3.4824	8.61925 - 1 8.61284 8.60044 8.60003 8.59362 8.58721 8.58080 8.57439 8.56798 8.56157

TABLE XI.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	tude	Sound speed		of viscosity	· · · · · · · · · · · · · · · · · · ·	viscosity	Thermal o	conductivity
H, ft	Z, ft	C _s , ft sec ⁻¹	μ , lb ft $^{ ext{-1}}$ sec $^{ ext{-1}}$	$\frac{\mu}{\mu_0}$	η, ft² sec⁻¹	$\frac{\eta}{\eta_0}$	k, BTUff ^{-l} sec ^{-l} (ºR) ^{-l}	k k _O
23000 23100 23200 23300 23400 23500 23600 23700 23700 23900	23426 23527 23627 23727 23827	1024.38 1023.96 1023.54 1023.52 1022.70 1022.28 1021.86 1021.44 1021.02	1.0487 - 5 1.0480 1.0473 1.0466 1.0459 1.0452 1.0445 1.0438 1.0438	8.72149 - 1 8.71570 8.70991 8.70412 8.69832 8.69252 8.68672 8.68672 8.67511 8.66930	2.8530 - 4 2.8610 2.8691 2.8771 2.8853 2.8934 2.9016 2.9098 2.9181 2.9263	1.81450 + 0 1.81961 1.82474 1.82989 1.83506 1.84024 1.84545 1.85067 1.85591 1.86117	3.4791 - 6 3.4765 3.4739 3.4713 3.4686 3.4680 3.4634 3.4582 3.4582 3.4555	8.55352 - 1 8.54709 8.54066 8.53423 8.52780 8.52136 8.51492 8.50849 8.50205 8.49561
24000 24100 24200 24300 24300 24500 24600 24700 24800 24900	24128 24228 24328 24429 24529 24629 24729 24830	1020.18 1019.76 1019.34 1018.92 1018.50 1018.08 1017.66 1017.24 1016.82	1.0417 - 5 1.0410 1.0403 1.0396 1.0389 1.0382 1.0375 1.0368 1.0361	8.66349 - 1 8.65768 8.65187 8.64605 8.64603 8.63441 8.62859 8.62276 8.61694 8.61111	2.9346 - 4 2.9430 2.9513 2.95597 2.9681 2.9766 2.9851 2.9936 3.0021	1.86645 + 0 1.87175 1.87707 1.88240 1.88776 1.89314 1.89853 1.90395 1.90938	3.4529 - 6 3.4503 3.4477 3.4451 3.4424 3.4398 3.4372 3.4316 3.4316 3.4319 3.4293	8.48917 - 1 8.48272 8.47628 8.46683 8.46339 8.45049 8.45049 8.4404 8.43759
25000 25100 25200 25300 25400 25500 25600 25700 25800 25900	25130 25230 25331 25431 25531 25631 25732 25832	1015.98 1015.55 1015.13 1014.71 1014.29 1013.86 1013.44 1013.02 1012.60 1012.17	1.0347 - 5 1.0340 1.0333 1.0326 1.0319 1.0312 1.0305 1.0298 1.0291	8.60528 - 1 8.59944 8.59361 8.58777 8.58193 8.57609 8.57024 8.556440 8.556440 8.55270	3.0193 - 4 3.0280 3.0366 3.0453 3.0541 3.0628 3.0716 3.0804 3.0893 3.0982	1.92031 + 0 1.92580 1.93132 1.93685 1.94241 1.94798 1.95358 1.95919 1.96483 1.97048	3.4267 - 6 3.4241 3.4214 3.4188 3.4162 3.4136 3.4109 3.4083 3.4057 3.4031	8.42469 - 1 8.41127 8.41177 8.40532 8.39886 8.39240 8.38594 8.37594 8.37594 8.37594
26000 26100 26200 26300 26400 26500 26600 26700 26800 26900	26133 26233 26333 26433 26534 26534 26634 26734	1011.75 1011.33 1010.90 1010.48 1010.05 1009.63 1009.20 1008.78 1008.36 1007.93	1.0277 - 5 1.0270 1.0263 1.0256 1.0256 1.0249 1.0242 1.0235 1.0227 1.0220	8.54685 - 1 8.54099 8.53513 8.52521 8.52341 8.51755 8.51168 8.50581 8.49994 8.49907	3.1071 - 4 3.1251 3.1251 3.1341 3.1432 3.1523 3.1614 3.1705 3.1797 3.1890	1.97616 + 0 1.98186 1.98758 1.99332 1.99908 2.00486 2.01067 2.01649 2.02234 2.02821	3.4004 - 6 3.3978 3.3952 3.3925 3.3899 3.3873 3.3846 3.3820 3.3794 3.3767	8.36008 - 1 8.355362 8.34715 8.34068 8.33421 8.32773 8.32126 8.31479 8.30831 8.30183
27000 27100 27200 27300 27400 27500 27600 27700 27800 27900	27135 27236 27336 27436 27436 27536 27637 27737 27037	1007.51 1007.08 1006.65 1006.23 1005.80 1005.38 1004.95 1004.52	1.0206 - 5 1.0199 1.0192 1.0185 1.0178 1.0171 1.0164 1.0157 1.0150 1.0143	8.48819 - 1 8.48232 8.47644 8.47056 8.46467 8.45879 8.45879 8.45879 8.44701 8.44111	3.1982 - 4 3.2075 3.2168 3.2262 3.2356 3.2450 3.25450 3.2545 3.2640 3.2736 3.2831	2.03410 + 0 2.04001 2.04594 2.05190 2.05787 2.06387 2.06990 2.07594 2.08201 2.08810	3.3741 - 6 3.3715 3.3688 3.3662 3.3635 3.3639 3.3530 3.3556 3.3530 3.3530	8.29536 - 1 8.28888 8.28240 8.27592 8.26943 8.26295 8.26468 8.24998 8.24998 8.24349
28000 28100 28200 28300 28400 28500 28600 28700 28800 28900	28138 28238 28338 28439 28539	1003.24 1002.82 1002.39 1001.96 1001.53 1001.11 1000.68 1000.25 999.82	1.0135 - 5 1.0128 1.0121 1.0114 1.0107 1.0100 1.0093 1.0086 1.0079 1.0072	8.42932 - 1 8.42342 8.41752 8.41162 8.40571 8.39980 8.39389 8.38798 8.38798 8.38798	3.2927 - 4 3.3024 3.3121 3.3218 3.3315 3.3413 3.3512 3.3610 3.3709 3.3809	2.09421 + 0 2.10034 2.10650 2.11268 2.11889 2.12511 2.13136 2.13764 2.14394 2.15026	3.3477 - 6 3.3451 3.3424 3.3398 3.3372 3.3345 3.3319 3.3292 3.3266 3.3239	8.23051 - 1 8.22402 8.21752 8.21103 8.20454 8.19804 8.19154 8.18504 8.17854 8.177204
29000 29100 29200 29300 29400 29500 29600 29700 29800 29900	29040 29141 29241 29341 29442 29542 29642 29742 29843 29943	998.96 998.53 998.10 997.67 997.25 996.82 996.39 995.96 995.53 995.09	1.0064 - 5 1.0057 1.0050 1.0043 1.0036 1.0029 1.0022 1.0015 1.0007	8.37023 - 1 8.36430 8.35838 8.35245 8.34652 8.34059 8.33466 8.32873 8.32279 8.31685	3.3908 - 4 3.4009 3.4109 3.4210 3.4311 3.4515 3.4515 3.4517 3.4720 3.4823	2.15660 + 0 2.16297 2.16936 2.17578 2.18222 2.18869 2.19518 2.20169 2.20823 2.21479	3.3213 - 6 3.3186 3.3160 3.3134 3.3107 3.3081 3.3054 3.3028 3.3001 3.2975	8.16554 - 1 8.15903 8.15253 8.14602 8.13952 8.13301 8.12650 8.11999 8.11347 8.10696
30000 30100 30200 30300 30400 30500 30600 30700 30800 30900	30043 30144 30244 30344 30545 30545 30645 30745 30846	994.66 994.23 993.80 993.37 992.94 992.51 992.08 991.64 991.21 990.78	9.9931 - 6 9.9859 9.9788 9.9716 9.9573 9.9573 9.9502 9.9430 9.9358 9.9287	8.31091 - 1 8.30496 8.29901 8.29307 8.28711 8.28116 8.27520 8.26925 8.26329 8.25732	3.4927 - 4 3.5031 3.5135 3.5240 3.5345 3.5451 3.5557 3.5663 3.5770 3.5877	2.22138 + 0 2.22799 2.23463 2.24129 2.24798 2.25470 2.26144 2.26820 2.27499 2.28181	3.2948 - 6 3.2922 3.2895 3.2869 3.2842 3.2816 3.2789 3.2763 3.2736 3.2736	8.10045 - 1 8.09393 8.08741 8.08090 8.07438 8.06785 8.06133 8.05481 8.04828 8.04176

		Sound	<u> </u>	RIC ALTITU				
Altit	ude	speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	onductivity ————
Z, ft	H, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k, BTU f1 ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
23000 23100 23200 23300 23400 23500 23600 23700 23800 23900	22975 23074 23174 23174 23374 23474 23573 23673 23773	1024.48 1024.06 1023.65 1023.23 1022.81 1022.39 1021.98 1021.98 1021.14 1020.72	1.0489 - 5 1.0487 1.0475 1.0468 1.0461 1.0454 1.0447 1.0440 1.0433	8.72296 - 1 8.71718 8.711140 8.70562 8.69984 8.69405 8.68248 8.67669 8.67089	2.8509 - 4 2.8589 2.8670 2.8750 2.8831 2.88913 2.8994 2.9076 2.9158 2.9241	1.81321 + 0 1.81830 1.82342 1.82355 1.83370 1.83887 1.84496 1.84926 1.855449 1.85973	3.4798 - 6 3.4745 3.4745 3.4719 3.4693 3.4667 3.4641 3.4615 3.4589 3.4563	8.55515 - 1 8.54874 8.54232 8.53590 8.52948 8.52306 8.51664 8.51022 8.50379 8.49737
24000 24100 24200 24300 24400 24500 24600 24700 24800 24900	23972 24072 24172 24272 24371 24471 24571 24571 24571 24870	1020.30 1019.88 1019.46 1019.04 1018.62 1018.20 1017.78 1017.36 1016.94 1016.52	1.0419 - 5 1.0412 1.0405 1.0398 1.0391 1.0384 1.0377 1.0370 1.0363	8.66510 - 1 8.65930 8.65350 8.64770 8.64189 6.63609 8.63028 8.62447 8.61865 8.61284	2.9323 - 4 2.9406 2.9490 2.9573 2.9657 2.9742 2.9826 2.9911 2.9996 3.0082	1.86499 + 0 1.87027 1.87557 1.88089 1.88623 1.89159 1.89697 1.90236 1.90778	3.4536 - 6 3.4510 3.4458 3.4432 3.4432 3.4406 3.4380 3.4327 3.4301	8.49094 - 1 8.48452 8.47809 8.47166 8.46523 8.45879 8.45236 8.4593 8.43949 8.43306
25000 25100 25200 25300 25400 25500 25600 25700 25800 25900	24970 25070 25170 25269 25369 25369 25569 25668 25768 25868	1016.10 1015.68 1015.26 1014.84 1014.42 1014.00 1013.57 1013.15 1012.73 1012.31	1.0349 - 5 1.0342 1.0335 1.0328 1.0321 1.0314 1.0307 1.0300 1.0293	8.60702 - 1 8.60120 8.59538 8.58956 8.58374 8.57791 8.57208 8.56625 8.56625 8.56641 8.55458	3.0167 - 4 3.0253 3.0340 3.0427 3.0514 3.0601 3.0689 3.0777 3.0865 3.0953	1.91867 + 0 1.92814 1.92964 1.93515 1.94069 1.94624 1.95182 1.95741 1.96303 1.96866	3.4275 - 6 3.4242 3.4222 3.4196 3.4170 3.4114 3.4118 3.4091 3.4065 3.4039	8.42662 - 1 8.42018 8.41374 8.40730 8.40085 8.39441 8.38797 8.38152 8.37507 8.36663
26000 26100 26200 26300 26400 26500 26600 26700 26800 26900	25968 26067 26167 26267 26367 26466 26566 26566 26766 26865	1011.89 1011.46 1011.04 1010.62 1010.20 1009.77 1009.35 1008.93 1008.50 1008.08	1.0279 - 5 1.0272 1.0265 1.0258 1.0258 1.0251 1.0244 1.0237 1.0230 1.0223	8.54874 - 1 8.54290 8.53706 8.53121 8.52537 8.51952 8.51367 8.50782 8.50196 8.49610	3.1042 - 4 3.1132 3.1221 3.1311 3.1401 3.1492 3.1583 3.1674 3.1766 3.1858	1.97432 + 0 1.98000 1.98570 1.99141 1.99715 2.00291 2.00870 2.01450 2.02032 2.02617	3.4013 - 6 3.3986 3.3960 3.3934 3.3908 3.3881 3.3885 3.3829 3.3803 3.3776	8.36218 - 1 8.35573 8.34927 8.34927 8.33437 8.32991 8.32346 8.31700 8.31054 8.30408
27000 27100 27200 27300 27400 27500 27600 27700 27800 27900	26965 27065 27165 27264 27364 27464 27464 27663 27763 27863	1007.65 1007.23 1006.80 1006.38 1005.96 1005.53 1005.11 1004.68 1004.25 1003.83	1.0209 - 5 1.0202 1.0195 1.0188 1.0181 1.0173 1.0166 1.0159 1.0152	8.49024 - 1 8.48438 8.47852 8.47265 8.46679 8.46679 8.445505 8.44917 8.44917 8.44329	3.1950 - 4 3.2042 3.2135 3.2229 3.2322 3.2416 3.2511 3.2605 5.2700 3.2796	2-03204 + 0 2-03793 2-04384 2-04977 2-05572 2-06170 2-06770 2-07372 2-07372 2-07976 2-08582	3.3750 - 6 3.3724 3.3698 3.3671 3.3619 3.3519 3.3592 3.3566 3.3540 3.3513	8.29762 - 1 8.29146 8.28469 8.27823 8.27176 8.26530 8.25236 8.25236 8.24589 8.24589
28000 28100 28200 28300 28400 28500 28600 28700 28800 28900	27962 28062 28162 28262 28361 28461 28561 28661 28760 28860	1003.40 1002.98 1002.55 1002.12 1001.70 1001.27 1000.84 1000.42 999.99 999.56	1.0138 - 5 1.0131 1.0124 1.0117 1.0110 1.0103 1.0096 1.0089 1.0081	8.43154 - 1 8.42565 8.41977 8.41388 8.40799 8.40210 8.39621 8.39631 8.38441 8.37851	3.2891 4 3.2987 3.3084 3.3181 3.3278 3.3375 3.3473 3.3571 3.3670 3.3769	2.09191 + 0 2.09802 2.10415 2.11031 2.11649 2.12269 2.12891 2.13516 2.14143 2.14773	3.3487 - 6 3.3461 3.3408 3.3382 3.3385 3.3329 3.3323 3.3276 3.3250	8.23295 - 1 8.22647 8.22000 8.21352 8.20057 8.20057 8.19409 8.18761 8.18112 8.17464
29000 29100 29200 29300 29400 29500 29600 29700 29800 29900	28960 29059 29159 29259 29359 29458 29558 29658 29757 29857	999.14 998.71 998.28 997.85 997.42 996.57 996.57 996.14 995.71	1.0067 - 5 1.0060 1.0053 1.0046 1.0039 1.0032 1.0025 1.0018 1.0010	8.37261 - 1 8.36671 8.36080 8.35489 8.35489 8.34307 8.33715 8.33723 8.32531 8.31939	3.3868 - 4 3.3968 3.4068 3.4168 3.4269 3.4370 3.4472 3.4574 3.4676 3.4779	2.15404 + 0 2.16038 2.16675 2.17314 2.17955 2.18599 2.19245 2.19894 2.20544 2.21198	3.3224 - 6 3.3197 3.3171 3.3144 3.3118 3.3092 3.3065 3.3039 3.3012 3.2986	8.16816 - 1 8.16167 8.15519 8.14870 8.14221 8.13572 8.12923 8.12974 8.11624 8.10975
30000 30100 30200 30300 30400 30500 30400 30700 30800 30900	29957 30057 30156 30256 30356 30455 30655 30655 30755 30854	994.85 994.42 993.99 993.56 993.13 992.70 992.27 991.84 991.41	9.9962 - 6 9.9891 9.9819 9.9748 9.9677 9.9605 9.9534 9.9462 9.9391 9.9319	8.31347 - 1 8.30754 8.30161 8.29568 8.28975 8.28381 8.27788 8.27194 8.26599	3.4882 - 4 3.4986 3.5090 3.5194 3.5299 3.5509 3.5509 3.55721 3.5828	2.21854 + 0 2.22512 2.23173 2.23836 2.24502 2.25170 2.25841 2.26515 2.27191 2.27869	3.2960 - 6 3.2933 3.2907 3.2880 3.2854 3.2827 3.2821 3.2774 3.2774 3.2722	8.10325 - 1 8.09676 8.09026 8.08376 8.07726 8.07076 8.06426 8.05775 8.05125 8.05125
		:						

Altit	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	conductivity
H, ft	Z, ft	C _s , ft sec ⁻ '	μ , Ib ft $^{ ext{-1}}$ sec $^{ ext{-1}}$	$\frac{\mu}{\mu_0}$	η, ft² sec⁻¹	$\frac{\eta}{\eta_0}$	k , BTU ft ^{-l} sec ^{-l} (°R) ^{-l}	k k _O
31000 31100 31200 31300 31400 31500 31600 31700 31800 31900	31046 31146 31247 31347 31447 31548 31648 31748 31849 31949	990.35 989.91 989.48 989.05 988.61 988.18 987.75 987.31 986.88 986.44	9.9215 - 6 9.9143 9.9071 9.9000 9.8928 9.8856 9.8856 9.8712 9.8640 9.8568	8.25136 - 1 8.24539 8.23542 8.23345 8.22748 8.22150 8.21552 8.20954 8.20356 8.19757	3.5985 - 4 3.6093 3.6201 3.6310 3.6419 3.6529 3.6639 3.6749 3.6860 3.6972	2.28866 + 0 2.29552 2.30242 2.30934 2.31629 2.32327 2.33027 2.33730 2.34435 2.35144	3.2683 - 6 3.2656 3.2630 3.2603 3.25577 3.2550 3.2524 3.2497 3.2470 3.2444	8.03523 - 1 8.02870 8.02217 8.01564 8.00911 8.00258 7.99605 7.98951 7.98297 7.97644
32000 32100 32200 32300 32400 32500 32600 32700 32800 32900	32049 32149 32250 32350 32450 32551 32551 32651 32751 32852 32952	986.01 985.58 985.14 984.71 984.27 983.83 983.40 982.96 982.53 982.09	9.8496 - 6 9.8424 9.8352 9.8208 9.8208 9.8136 9.8064 9.7991 9.7919 9.7847	8.19158 - 1 8.18559 8.17960 8.17361 8.16761 8.16161 8.15561 8.14960 8.14360 8.14360	3.7084 - 4 3.7196 3.7308 3.7422 3.7535 3.7649 3.7763 3.7878 3.7994 3.8109	2.35855 + 0 2.36568 2.37285 2.38004 2.38726 2.39451 2.40179 2.40179 2.40909 2.41642 2.42379	3.2417 - 6 3.2391 3.2364 3.2337 3.2311 3.2284 3.2257 3.2231 3.2204 3.2178	7.96990 - 1 7.96336 7.95681 7.95027 7.94373 7.93718 7.93064 7.92409 7.91754 7.91099
33000 33100 33200 33300 33400 33500 33600 33700 33800 33900	33052 33153 33253 33353 33454 33654 33654 33755 33855 33955	981.65 981.22 980.78 980.34 979.91 979.47 979.03 978.59 978.16 977.72	9.7775 - 6 9.7702 9.7630 9.7558 9.7485 9.7413 9.7340 9.7268 9.7195 9.7123	8.13158 - 1 8.12556 8.11955 8.11353 8.10751 8.10149 8.09546 8.08943 8.08340 8.07737	3.8226 - 4 3.8342 3.8459 3.8577 3.8695 3.8813 3.8932 3.9052 3.9172 3.9292	2.43118 + 0 2.43604 2.44505 2.45352 2.46102 2.46856 2.47612 2.49372 2.49134 2.49899	3.2151 - 6 3.2124 3.2098 3.2071 3.2014 3.2018 3.1991 3.1964 3.1938 3.1911	7.90444 - 1 7.89789 7.89133 7.88478 7.87822 7.87166 7.86511 7.85855 7.85199 7.84542
34000 34100 34200 34300 34400 34500 34700 34800 34900	34056 34156 34256 34357 34457 34557 3458 34758 34758 34858	977.28 976.84 976.40 975.96 975.52 975.08 974.65 974.21 973.77 973.33	9.7050 - 6 9.6978 9.6905 9.6933 9.6760 9.6687 9.6614 9.6542 9.6469 9.6396	8.07134 - 1 8.06530 8.055926 8.05322 8.04718 8.04113 8.03508 8.02903 8.02298 8.01692	3.9413 - 4 3.9534 3.9656 3.9778 3.9901 4.0024 4.0147 4.0272 4.0396 4.0521	2.50668 + 0 2.51439 2.52213 2.52991 2.53771 2.54555 2.55341 2.56131 2.56924 2.57720	3.1884 - 6 3.1851 3.1831 3.1804 3.1777 3.1751 3.1724 3.1697 3.1670 3.1644	7.83886 - 1 7.83230 7.82573 7.81916 7.81259 7.80603 7.79945 7.79288 7.78631 7.77974
35000 35200 35400 35600 35800 36000 36200 36400 36600 36800	35059 35260 35460 35661 35862 36062 36263 36464 36664 36865	972.89 972.00 971.12 970.24 969.36 968.47 968.08 968.08 968.08	9.6323 - 6 9.6177 9.6032 9.5886 9.5739 9.5593 9.5528 9.5528 9.5528	8.01086 - 1 7.99874 7.98661 7.97447 7.96231 7.95015 7.94472 7.94472 7.94472	4.0647 - 4 4.0900 4.1155 4.1411 4.1670 4.1931 4.2273 4.2681 4.3093 4.3510	2.58519 + 0 2.60127 2.61747 2.63380 2.65027 2.66686 2.68858 2.71455 2.74077 2.76725	3.1617 - 6 3.1563 3.1510 3.1456 3.1403 3.1349 3.1325 3.1325 3.1325 3.1325	7.77316 - 1 7.74685 7.7368 7.72051 7.70734 7.70146 7.70146 7.70146 7.70146
37000 37200 37400 37600 37800 38000 38200 38400 38600	37066 37266 37467 37668 37869 38069 38270 38471 38672 38872	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	4.3930 - 4 4.4354 4.4783 4.5215 4.5652 4.6093 4.6538 4.6988 4.7441 4.7900	2.79397 + 0 2.82096 2.84821 2.87572 2.90350 2.93154 2.95986 2.98845 3.01731 3.04646	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.701%6 - 1 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6
39000 39200 39400 39600 39800 40000 40200 40400 40600 40800	39073 39274 39475 39675 39876 40077 40278 40478 40679 40880	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	4.8362 - 4 4.8829 4.9301 4.9777 5.0258 5.0744 5.1234 5.1729 5.2228 5.2733	3.07588 + 0 3.10559 3.13559 3.16588 3.19646 3.22733 3.25850 3.28998 3.32176 3.35384	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
41000 41200 41400 41600 42000 42200 42200 42400 42600 42800	41081 41282 41482 41683 41884 42286 42486 42486 42488	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	5.3242 - 4 5.3756 5.4275 5.4800 5.5329 5.5863 5.6403 5.6948 5.7498 5.7498	3.38624 + 0 3.41894 3.45197 3.48531 3.51898 3.55297 3.58728 3.62193 3.65692 3.69224	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146

Altit	·ude	Sound speed		of viscosity		viscosity	Thermal o	conductivity
Z, ft	H, ft	C _s ,	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η, ft² sec⁻¹	$\frac{\eta}{\eta_0}$	k, BTU ft ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
31000 31100 31200 31300 31400 31500 31600 31800 31900	30954 31054 31153 31253 31353 31452 31552 31652 31752 31851	990.55 990.11 989.68 989.25 988.39 987.95 987.52 987.09	9.9248 - 6 9.9176 9.9105 9.9033 9.8962 9.8890 9.8818 9.8747 9.8675 9.8603	8.25410 - 1 8.24816 8.24220 8.23625 8.23030 8.23030 8.212434 8.21242 8.20645 8.20049	3.5935 - 4 3.6043 3.6151 3.6259 3.6368 3.6477 3.6586 3.6696 3.6897 3.6917	2.28550 + 0 2.29234 2.29920 2.30609 2.31301 2.31995 2.32692 2.33391 2.34093 2.34798	3.2695 - 6 3.2669 3.2642 3.2616 3.2589 3.2563 3.2563 3.2510 3.2483 3.2457	8.03824 - 1 8.03173 8.02522 8.01871 8.01220 8.00568 7.99917 7.99265 7.98614 7.97962
32000 32100 32200 32300 32400 32500 32600 32700 32800 32900	31951 32051 32150 32250 32350 32449 32549 32649 32748 32848	986.22 985.79 985.36 984.92 984.49 984.05 983.62 983.19 982.75 982.32	9.8532 - 6 9.8460 9.8388 9.8316 9.8244 9.8172 9.8100 9.8028 9.7956 9.7884	8.19452 - 1 8.18855 8.18258 8.17660 8.17062 8.16464 8.15866 8.15268 8.14669	3.7029 - 4 3.7140 3.7252 3.7365 3.7478 3.7591 3.7705 3.7819 3.7934 3.8049	2.35506 + 0 2.36216 2.36929 2.37644 2.38363 2.39084 2.39808 2.40535 2.41264 2.41997	3.2430 - 6 3.2404 3.2377 3.2351 3.2324 3.2298 3.2271 3.2244 3.2218 3.2191	7.97310 - 1 7.96658 7.96006 7.95354 7.94702 7.94049 7.93397 7.92744 7.92091 7.91438
33000 33100 33200 33300 33400 33500 33600 33700 33800 33900	32948 33048 33147 33247 33347 33346 33546 33646 33745 33845	981.88 981.45 981.01 980.58 980.14 979.70 979.27 978.83 978.40 977.96	9.7812 - 6 9.7740 9.7668 9.7596 9.7594 9.7452 9.7380 9.7307 9.7307 9.7335	8.13471 - 1 8.12872 8.12272 8.11672 8.11672 8.10472 8.09872 8.09872 8.08670 8.08069	3.8165 - 4 3.6281 3.6397 3.8514 3.8632 3.8750 3.8868 3.8987 3.9106 3.9226	2.42732 + 0 2.43470 2.44211 2.44955 2.45701 2.46451 2.47203 2.47958 2.48717 2.49478	3.2165 - 6 3.2138 3.2112 3.2085 3.2059 3.2032 3.2005 3.1979 3.1952 3.1926	7.90785 - 1 7.90132 7.89479 7.89826 7.88172 7.87519 7.86865 7.86211 7.85557 7.84903
34000 34100 34200 34300 34500 34500 34600 34700 34800 34900	33945 34044 34144 34244 34343 34443 34543 34642 34742 34842	977.52 977.09 976.65 976.21 975.77 975.34 974.90 974.46 974.02 973.58	9.7091 - 6 9.7018 9.6946 9.6873 9.6801 9.6729 9.6656 9.6584 9.6511 9.6439	8.07468 - 1 8.06866 8.06264 8.05060 8.05060 8.04458 8.03855 8.03252 8.02649 8.02045	3.9346 - 4 3.9466 3.9587 3.9709 3.9831 3.9954 4.0077 4.0200 4.0324 4.0448	2.50242 + 0 2.51009 2.51779 2.52553 2.53329 2.54108 2.54890 2.55676 2.56464 2.57255	3.1899 - 6 3.1872 3.1846 3.1819 3.1776 3.1776 3.1739 3.1713 3.1686 3.1659	7.84249 - 1 7.83595 7.82941 7.82286 7.81632 7.80977 7.80322 7.79667 7.79012 7.78357
35000 35200 35400 35600 35800 36000 36400 36600 36800	34941 35141 35340 35539 35739 35938 36137 36337 36536 36735	973.14 972.27 971.39 970.51 969.63 968.74 968.08 968.08 968.08	9.6366 - 6 9.6221 9.6075 9.5930 9.5784 9.5528 9.5528 9.5528 9.5528	8.01442 - 1 8.00234 7.99025 7.97815 7.96604 7.95393 7.94472 7.94472 7.94472	4.0573 - 4 4.0825 4.1078 4.1333 4.1591 4.1595 4.2145 4.2551 4.2961 4.3374	2.58050 + 0 2.59649 2.61260 2.62884 2.64520 2.66170 2.68049 2.70629 2.73234 2.75864	3.1633 - 6 3.1579 3.1526 3.1473 3.1419 3.1366 3.1325 3.1325 3.1325	7.77702 - 1 7.76391 7.75379 7.73768 7.72455 7.71143 7.70146 7.70146 7.70146
37000 37200 37400 37600 37800 38000 38200 38400 38600	36934 37134 37333 37532 37732 37931 38130 38329 38529 38529	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	4.3792 - 4 4.4213 4.4639 4.55068 4.5502 4.6582 4.6828 4.7279	2.78519 + 0 2.81199 2.83906 2.86638 2.89397 2.92182 2.94994 2.97833 3.00699 3.03592	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
39000 39200 39400 39600 39800 40200 40400 40600 40600	38927 39126 39326 39525 39724 39923 40123 40322 40521 40720	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	4.8657 4.8657 4.9125 4.9598 5.0075 5.0557 5.1044 5.1535 5.2031	3.06514 + 0 3.09463 3.12441 3.15448 3.18483 3.21547 3.24641 3.27765 3.30918 3.34102	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
41000 41200 41400 41600 42000 42000 42400 42600 42800	40920 41119 41318 41517 41716 41916 42115 42314 42513 42712	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	5.3037 - 4 5.3547 5.4062 5.4582 5.5107 5.5637 5.64713 5.7258 5.7809	3.37317 + 0 3.40562 3.43839 3.47146 3.50486 3.53858 3.57262 3.60699 3.64168 3.67672	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146

TABLE ▼I.—Continued

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altil	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
H, ft	Z, ft	C _s , ft sec ⁻¹	μ , ib ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η, ft² sec⁻¹	$\frac{\eta}{\eta_0}$	k , BTU ft ⁻¹ sec ⁻¹ (°R) ⁻¹	k k ₀
43000 43200 43400 43600 43600 44000 44600 44600	43089 43290 43491 43691 43692 44093 44294 44495 44696	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7-94472 - 1 7-94472 7-94472 7-94472 7-94472 7-94472 7-94472 7-94472	5.8614 - 4 5.9180 5.9752 6.0329 6.0912 6.1500 6.2094 6.2694 6.2694 6.3911	3.72790 + 0 3.76391 3.80027 3.83697 3.87%0% 3.91146 3.94924 3.98738 4.02590 4.06478	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
45000 45200 45200 45800 46000 46400 46400 46800	45097 45298 45499 45700 45901 46102 46303 46503 46704 46905	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	6.4528 - 4 6.5151 6.5781 6.6416 6.7058 6.7705 6.8359 6.9020 6.9686 7.0359	4.10404 + 0 4.14369 4.18371 4.22412 4.26492 4.30612 4.38771 4.38970 6.43210 4.47491	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.701%6 - 1 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6
47000 47200 47400 47600 47800 48000 48400 48600 48600	47106 47307 47508 47709 47710 48111 48312 48513 48714	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	7.1039 - 4 7.1725 7.2418 7.3117 7.3824 7.4537 7.5257 7.55984 7.6718 7.7459	4.51814 + 0 4.56178 4.60584 4.65033 4.69525 4.74060 4.78639 4.8362 4.87730 4.92643	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.701%6 - 1 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6
49000 49200 49400 49800 50200 50200 50400 50800	49115 49316 49517 49718 49719 50120 50321 50522 50723 50924	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	7.8207 - 4 7.8962 7.9725 8.0495 8.1272 8.2057 8.2850 8.3650 8.3650 8.4458 8.5274	4.97401 + 0 5.02206 5.07057 5.11954 5.16899 5.21892 5.26933 5.37161 5.42350	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.701%6 - 1 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6 7.701%6
51000 51200 51400 51400 51800 52000 52200 52400 52600 52800	51125 51326 51527 51728 51929 52130 52331 52532 52733 52934	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	8.6098 - 4 8.6929 8.7769 8.8617 8.9473 9.1209 9.2090 9.2090 9.3878	5.47589 + 0 5.52878 5.58218 5.63610 5.69054 5.74550 5.80100 5.85703 5.91360 5.97072	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
53000 53200 53400 53600 53600 54000 54000 54600 54600	53135 53336 53537 53738 53738 54140 54341 54542 54743 54944	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	9.4785 - 4 9.5700 9.6625 9.7558 9.8500 9.9452 1.0041 - 3 1.0138 1.0236 1.0335	6.02840 + 0 6.08662 6.14541 6.20477 6.26471 6.32522 6.38631 6.44800 6.51028 6.57316	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
55000 55200 55400 55600 55600 56000 56200 56400 56400 56800	55145 55347 55548 55749 55950 56152 56352 56553 56754 56955	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.0%35 - 3 1.0536 1.0637 1.0740 1.0844 1.0949 1.105% 1.1161 1.1269 1.1378	6.63665 + 0 6.70076 6.76548 6.83083 6.89681 6.96342 7.03068 7.09859 7.16716 7.23639	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
57000 57200 57400 57400 57800 58000 58200 58400 58400 58800	57156 57357 57558 57760 57961 58162 58363 58564 58765 58966	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.1488 - 3 1.1599 1.1711 1.1824 1.1938 1.2053 1.2170 1.2287 1.2406 1.2526	7.30628 + 0 7.37685 7.44811 7.52005 7.59269 7.66602 7.74007 7.81483 7.89032 7.96653	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146

Alti	tude	Sound speed		of viscosity		viscosity	Thermal o	conductivity
Z, fi	H, ft	C _s , ft sec ⁻¹	μ , Ib ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η, ft² sec⁻¹	$\frac{\eta}{\eta_0}$	k , BTU ff ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
43000 43200 43400 43600 43600 44200 44600 44600 44800	42912 43111 43310 43508 43708 43707 44107 44306 44505	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	5.8365 - 4 5.8927 5.9494 6.0066 6.0644 6.1227 6.1816 6.2410 6.3010 6.3616	3.71208 + 0 3.74779 3.78384 3.82023 3.85698 3.99408 3.93153 3.96934 4.00752 4.04606	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
45000 45200 45400 45400 45800 46200 46200 46400 46800 46800	44903 45102 45301 45501 45709 46098 46297 46496 46695	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	6.4228 - 4 6.4846 6.5470 6.6009 6.6735 6.7377 6.8025 6.8679 6.9339 7.0006	4.08498 + 0 4.12426 4.16392 4.20397 4.24440 4.28521 4.32642 4.36802 4.41003 4.45243	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
47000 47200 47400 47600 47600 48000 48400 48600 48600	46894 47093 47293 47692 47691 47890 48089 48288 48487 48686	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94672 - 1 7.94672 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	7.0679 - 4 7.1359 7.2045 7.2737 7.3437 7.4143 7.4856 7.5575 7.6302 7.7036	4.49524 + 0 4.53847 4.58211 4.62616 4.67064 4.71555 4.76089 4.80666 4.85287 4.89952	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
49000 49200 49400 49600 50000 50200 50400 50600 50800	48885 49084 49283 49482 49681 49880 50079 50278 50478 50677	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	7.7776 - 4 7.6524 7.9279 8.0041 8.0810 8.1587 8.2371 8.3163 8.3962 8.4770	4.94663 + 0 4.99418 5.04219 5.09066 5.13960 5.18901 5.23889 5.28924 5.34008 5.39141	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
51000 51200 51400 51600 51800 52000 52200 52400 52600 52800	50876 51075 51274 51473 51672 51871 52070 52269 52468 52667	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	8.558% - % 8.6407 8.7237 8.2076 8.8922 8.9777 9.0640 9.1511 9.2390 9.3278	5.44324 + 0 5.49555 5.54837 5.60170 5.65554 5.70989 5.76477 5.82017 5.87611 5.93258	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
53000 53200 53400 53600 53600 54000 54200 54600 54600 54800	52866 53065 53264 53463 53662 53861 54059 54258 54457 54656	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	9.4175 - 4 9.5080 9.5993 9.6916 9.7847 9.8787 9.9737 1.0069 - 3 1.0166	5.98959 + 0 6.04715 6.10526 6.10526 6.22316 6.28296 6.34333 6.40428 6.46582 6.52794	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
55000 55200 55400 55600 55800 56000 56200 56400 56400 56800	54855 55054 55253 55452 55651 55850 56049 56248 56447 56646	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.0363 - 3 1.0462 1.0563 1.0664 1.0767 1.0870 1.0974 1.1080 1.1186	6.59066 + 0 6.65399 6.71792 6.78246 6.84762 6.91341 6.97982 7.04688 7.11458 7.18292	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
57000 57200 57400 57400 57800 58000 58200 58400 58600 58800	56845 57044 57242 57441 57640 57839 58038 58237 58436 58635	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.1402 - 3 1.1512 1.1622 1.1734 1.1847 1.1960 1.2075 1.2191 1.2308	7.25192 + 0 7.32158 7.39192 7.46292 7.53461 7.60698 7.75381 7.82829 7.90347	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
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TABLE ▼I.—Continued

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

		Sound		NIIAL ALIII				
Alti	ude	speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal (conductivity
H, ft	Z, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k , BTU f1 ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
59000 59200 59400 59600 59800 60000 60200 60400 60600 60800	59167 59369 59570 59771 59972 60173 60374 60575 60777	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.2647 - 3 1.2769 1.2892 1.3017 1.3143 1.3270 1.3398 1.3527 1.3658 1.3790	8.04348 + 0 8.12117 8.19961 6.27881 8.35878 8.43952 8.52103 8.60334 8.60334 8.77034	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
61000 61200 61400 61600 62000 62200 62400 62400 62800	61179 61380 61581 61783 61984 62185 62386 62587 62788 62990	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.3923 - 3 1.4057 1.4193 1.4330 1.4469 1.4608 1.4749 1.4892 1.5036 1.5181	8.85506 + 0 8.94059 9.02694 9.11414 9.20217 9.29106 9.38080 9.47141 9.56289 9.65526	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
63000 63200 63400 63600 64000 64200 64400 64600 64800	63191 63392 63593 63795 63996 64197 64398 64600 64801 65002	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.5328 - 3 1.5476 1.5625 1.5776 1.5928 1.6082 1.6238 1.6395 1.6553	9.74852 + 0 9.84268 9.93775 1.00337 + 1 1.01307 1.02285 1.03273 1.04271 1.05278 1.06295	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
65000 65200 65400 65600 65800 66200 66200 66400 66800	65203 65404 65606 65807 66008 66210 66411 66612 66813 67015	968.08 968.08 968.08 968.20 968.34 968.47 968.61 968.74 968.88	9.5528 - 6 9.5528 9.5528 9.5529 9.5549 9.5571 9.5594 9.5616 9.5639	7.94472 - 1 7.94472 7.94472 7.94472 7.94644 7.94831 7.95018 7.95205 7.95393 7.95580	1.6874 - 3 1.7037 1.7202 1.7368 1.7544 1.7722 1.7903 1.8085 1.6269	1.07321 + 1 1.08358 1.09405 1.10461 1.11581 1.12717 1.13863 1.15022 1.16191 1.17372	3.1325 - 6 3.1325 3.1325 3.1325 3.1333 3.1341 3.1349 3.1358 3.1366 3.1374	7.70146 - 1 7.70146 7.70146 7.70146 7.70332 7.70534 7.70737 7.70940 7.71143 7.71345
67000 67200 67400 67600 67800 68000 68200 68400 68600 68800	67216 67417 67619 67820 68021 68222 68424 68625 68826 69028	969.02 969.15 969.29 969.43 969.56 969.70 969.83 969.97 970.10	9.568% - 6 9.5706 9.5729 9.57751 9.5774 9.5819 9.5841 9.5843 9.5863	7.95767 - 1 7.95954 7.96141 7.96328 7.96515 7.96702 7.96889 7.97076 7.97263 7.97450	1.8642 - 3 1.8831 1.9023 1.9216 1.9411 1.9408 1.9807 2.0008 2.0211 2.0415	1.18565 + 1 1.19770 1.20986 1.22215 1.23455 1.24708 1.25973 1.27251 1.28541 1.29844	3.1382 - 6 3.1399 3.1399 3.1407 3.1415 3.1424 3.1432 3.1440 3.1448 3.1456	7.71548 - 1 7.71751 7.71953 7.72156 7.72358 7.72561 7.72764 7.72764 7.73169 7.73371
69000 69200 69400 69600 69600 70000 70200 70400 70600 70800	69229 69430 69632 69833 70034 70236 70437 70638 70840 71041	970.38 970.51 970.65 970.78 970.92 971.06 971.19 971.33 971.46 971.60	9.5908 - 6 9.5931 9.5953 9.5976 9.5998 9.6021 9.6043 9.6066 9.6088	7.97636 - 1 7.97823 7.98010 7.98197 7.98384 7.98570 7.98757 7.98944 7.99131 7.99317	2.0622 - 3 2.0831 2.1042 2.1255 2.1471 2.1471 2.1907 2.2129 2.2352 2.2578	1.31160 + 1 1.32489 1.33831 1.35186 1.36554 1.37536 1.39332 1.40741 1.42164 1.43601	3.1465 - 6 3.1473 3.1481 3.1489 3.1506 3.1514 3.1522 3.1531 3.1539	7.73574 - 1 7.73777 7.73979 7.74182 7.74384 7.74587 7.74587 7.74992 7.75194 7.75396
71000 71200 71400 71600 71800 72000 72200 72400 72600 72800	71243 71444 71645 71847 72048 72249 72451 72652 72854 73055	971.73 971.87 972.01 972.14 972.28 972.41 972.55 972.68 972.82 972.95	9.6133 - 6 9.6155 9.6178 9.6200 9.6223 9.6245 9.6268 9.6290 9.6312 9.6335	7.99504 - 1 7.99690 7.99877 8.00064 8.00250 8.00437 8.00623 8.00810 8.00996 8.01183	2.2807 - 3 2.3037 2.3270 2.3505 2.3742 2.3981 2.4223 2.4468 2.4714 2.4963	1.45052 + 1 1.46517 1.47997 1.49491 1.51000 1.52524 1.54063 1.55616 1.57185 1.58770	3.1547 - 6 3.1555 3.1554 3.1572 3.1580 3.1588 3.1596 3.1605 3.1613 3.1621	7.75599 - 1 7.75801 7.76004 7.76206 7.76409 7.76611 7.76813 7.77016 7.77218 7.77420
73000 73200 73400 73600 73800 74000 74200 74500 74600 74800	73256 73458 73659 73861 74062 74264 74465 74666 74868 75069	973.09 973.23 973.36 973.50 973.63 973.77 973.90 974.04 974.17	9.6357 - 6 9.6402 9.6402 9.6424 9.6447 9.6449 9.6492 9.6514 9.6536 9.6559	8.01369 - 1 8.01555 8.01742 8.01928 8.02114 8.02301 8.02487 8.02673 8.02659 8.03046	2.5215 - 3 2.5469 2.5726 2.5985 2.6246 2.6510 2.6777 2.77046 2.7318 2.7593	1.60370 + 1 1.61985 1.63617 1.65264 1.66927 1.70303 1.72016 1.73746 1.75492	3.1629 - 6 3.1638 3.1646 3.1654 3.1662 3.1671 3.1677 3.1687 3.1695 3.1703	7.77623 - 1 7.77825 7.78027 7.78430 7.78432 7.78634 7.78636 7.79039 7.79241 7.79443
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		г	GEOWIE I	RIC ALTITUI	DE, ENGLIS	n UNITS		
Altii	ude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	conductivity
Z, ft	H, ft	C _s , ft sec ⁻¹	μ , lb ft sec	$\frac{\mu}{\mu_0}$	η , ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k, BTU ft ^{-l} sec ^{-l} (°R) ^{-l}	k k _O
59000 59200 59400 59600 59800 60000 60200 60400 60400 60400	58834 59032 59231 59430 59629 59828 60027 60226 60424 60623	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.2546 - 3 1.2667 1.2788 1.2911 1.3035 1.3160 1.3287 1.3414 1.3543 1.3673	7.97938 + 0 8.05602 6.13339 8.21150 8.29036 8.36998 8.45036 8.53151 8.61344 8.69615	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7-70146 - 1 7-70146 7-70146 7-70146 7-70146 7-70146 7-70146 7-70146 7-70146
61000 61200 61400 61600 61800 62000 62200 62400 62400 62800	60822 61021 61220 61419 61617 61816 62015 62214 62413 62611	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.3804 - 3 1.3937 1.4071 1.4071 1.4206 1.4342 1.4480 1.4619 1.4759 1.4759 1.4901	8.77966 + 0 8.86396 8.94908 9.03501 9.12176 9.20934 9.29777 9.38704 9.47716 9.56815	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
63000 63200 63400 63600 63800 64000 64200 64400 64600 64800	62810 63009 63208 63407 63605 63804 64003 64202 64400 64599	968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08 968.08	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528 9.5528	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472 7.94472	1.5188 - 3 1.5334 1.5582 1.5630 1.5780 1.5932 1.6085 1.6239 1.63395	9.66001 + 0 9.75276 9.84639 9.94091 1.00363 + 1 1.01327 1.02300 1.03282 1.04273 1.05274	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325 3.1325	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146 7.70146
65000 65200 65400 65600 65800 66000 66200 66400 66600 66800	64798 64997 65196 65394 65593 65792 65991 66189 66388 66587	968.08 968.08 968.08 968.08 968.08 968.19 968.33 968.47 968.60 968.74	9.5528 - 6 9.5528 9.5528 9.5528 9.5528 9.5528 9.5570 9.5572 9.5615 9.5637	7.94472 - 1 7.94472 7.94472 7.94472 7.94472 7.94636 7.94822 7.95008 7.95194 7.95380	1.6711 - 3 1.6872 1.7034 1.7197 1.7362 1.7537 1.7714 1.7893 1.8074 1.8257	1.06285 + 1 1.07305 1.08335 1.09375 1.10424 1.11534 1.12662 1.13801 1.14951 1.16113	3.1325 - 6 3.1325 3.1325 3.1325 3.1325 3.1333 3.1341 3.1349 3.1357 3.1357	7.70146 - 1 7.70146 7.70146 7.70146 7.70146 7.70323 7.70525 7.70726 7.70928 7.71129
67000 67200 67400 67600 67600 68000 68200 68400 68600 68800	66785 66984 67183 67382 67580 67779 67978 68176 68375 68574	968.87 969.01 969.14 969.28 969.41 969.55 969.68 969.82 969.95 970.09	9.5659 - 6 9.5682 9.5704 9.5727 9.5749 9.5771 9.5794 9.5816 9.5838 9.5861	7.95566 - 1 7.95752 7.95938 7.96124 7.96309 7.96495 7.96481 7.96867 7.97052 7.97238	1.8441 - 3 1.8627 1.8815 1.9005 1.9197 1.9390 1.9586 1.9783 1.9983 2.0184	1.17286 + 1 1.18470 1.19666 1.20873 1.22973 1.23324 1.24568 1.25823 1.27091	3.1373 - 6 3.1389 3.1390 3.1398 3.1406 3.1414 3.1423 3.1431 3.1439 3.1447	7.71330 - 1 7.71532 7.71733 7.71935 7.72337 7.72538 7.72740 7.72741 7.73142
69000 69200 69400 69600 69800 70000 70200 70400 70600 70800	68772 68971 69170 69368 69567 69766 69964 70163 70362 70560	970.22 970.36 970.49 970.63 970.76 970.90 971.03 971.17 971.30 971.44	9.5883 - 6 9.5905 9.5927 9.5920 9.5972 9.5974 9.6017 9.6039 9.6061	7.97424 - 1 7.97609 7.97795 7.97981 7.98166 7.98352 7.98537 7.98723 7.98723 7.98908 7.99094	2.0387 - 3 2.0592 2.0800 2.1009 2.1220 2.1434 2.1649 2.1867 2.2086 2.2308	1.29664 + 1 1.30969 1.32287 1.33618 1.34962 1.36319 1.37690 1.39073 1.40470 1.41881	3.1455 - 6 3.1464 3.1472 3.1480 3.1488 3.1496 3.1504 3.1513 3.1521 3.1522	7.73344 - 1 7.73545 7.73746 7.73947 7.74148 7.74349 7.74551 7.74752 7.74953 7.75154
71000 71200 71400 71600 71800 72000 72200 72400 72600 72800	70759 70958 71156 71355 71554 71752 71951 72150 72348 72547	971.57 971.71 971.84 971.98 972.11 972.24 972.38 972.51 972.65 972.78	9.6106 - 6 9.6128 9.6151 9.6173 9.6175 9.6217 9.6240 9.6262 9.6284 9.6306	7.99279 - 1 7.99464 7.99450 7.99835 8.0020 8.00206 8.00391 8.00576 8.00761 8.00946	2.2532 - 3 2.2758 2.2987 2.3850 2.3685 2.3622 2.162 2.162 2.4404 2.4648	1.43306 + 1 1.44744 1.46196 1.47663 1.49144 1.50639 1.52148 1.53673 1.55212	3.1537 - 6 3.1545 3.1554 3.15562 3.1570 3.1578 3.1586 3.1594 3.1603 3.1611	7.75355 - 1 7.75556 7.75757 7.75958 7.76159 7.76360 7.76561 7.76561 7.76762 7.76963 7.77164
73000 73200 73400 73600 73800 74000 74200 74400 74600 74800	72745 72944 73143 73341 73540 73738 73937 74135 74334 74533	972.92 973.05 973.19 973.32 973.46 973.59 973.72 973.86 973.99 974.13	9.6329 - 6 9.6351 9.6373 9.6375 9.6418 9.6440 9.6462 9.6462 9.6527 9.6529	8.01132 - 1 8.01317 8.01502 8.01607 8.01872 8.02057 8.02257 8.02242 8.02427 8.02427 8.02512	2.4895 - 3 2.5144 2.5396 2.53650 2.5906 2.6165 2.6165 2.6427 2.6691 2.6957 2.7226	1.58335 + 1 1.59920 1.61519 1.63135 1.64766 1.66413 1.68076 1.6754 1.73161	3.1619 - 6 3.1627 3.1635 3.1633 3.1652 3.1660 3.1668 3.1676 3.1679	7.77365 - 1 7.77566 7.77767 7.77968 7.78169 7.78370 7.78570 7.78771 7.78771 7.78972 7.79173
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TABLE ▼I.—Continued GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	tude	Sound speed	Coefficient	of viscosity	Kinematio	viscosity	Thermal o	conductivity
H, ft	Z, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft z sec $^{-1}$	$\frac{\eta}{\eta_0}$	k, BTU ff ^{-l} sec ^{-l} (°R) ^{-l}	k k _O
75000 75200 75400 75600 75800 76000 76200 76200 76600	75271 75472 75474 75674 75875 76077 76278 76479 76481 76882 77084	974.44 974.58 974.72 974.85 974.99 975.12 975.26 975.39 975.53	9.6581 - 6 9.6604 9.6626 9.6648 9.6671 9.6693 9.6715 9.6738 9.6760 9.6760	8.03232 - 1 8.03418 8.03604 8.03770 8.03976 8.04162 8.04349 8.04535 8.04721 8.04721	2.7870 - 3 2.8150 2.8433 2.8718 2.9706 2.9297 2.9591 2.9888 3.0188 3.0480	1.77255 + 1 1.77036 1.80834 1.82650 1.84483 1.86334 1.86334 1.80091 1.91997	3.1742 - 6 3.1720 3.1728 3.1736 3.1745 3.1753 3.1761 3.1769 3.1777 3.1786	7.79645 - 1 7.79848 7.80050 7.80050 7.80252 7.80454 7.80056 7.81061 7.81061 7.81063
77000 77200 77400 77600 77800 78000 78200 78400 78600 78600	77285 77487 77688 77890 78091 78293 78494 78696 78897 79099	975.80 975.93 976.07 976.20 976.34 976.47 976.61 976.74 976.88	9.6805 - 6 9.6827 9.6850 9.6872 9.6894 9.6917 9.6939 9.6961 9.6961 9.6984 9.7006	8.05093 - 1 8.05278 8.05464 8.05650 8.05650 8.05836 8.06022 8.06208 8.06394 8.06579 8.06765	3.0796 - 3 3.1104 3.1416 3.1730 3.2048 3.2369 3.2692 3.3019 3.350 3.3683	1.95864 + 1 1.97826 1.99808 2.01808 2.03828 2.05867 2.07927 2.10006 2.12106 2.14226	3.1794 - 6 3.1802 3.1810 3.1819 3.1827 3.1827 3.1843 3.1851 3.1860 3.1868	7.81667 - 1 7.81869 7.82071 7.82273 7.82475 7.82677 7.82679 7.83081 7.83283 7.83485
79000 79200 79400 79600 79800 80000 80200 80400 80400 80600 80800	79300 79502 79703 79905 80107 80308 80510 80711 80913 81114	977.15 977.28 977.42 977.55 977.69 977.82 977.96 978.09 978.23 978.36	9.7028 - 6 9.7051 9.7073 9.7075 9.7118 9.7140 9.7140 9.7162 9.7185 9.7207 9.7229	8.06951 - 1 8.07137 8.07322 8.07508 8.07508 8.07694 8.0879 8.08065 8.08251 8.08436 8.08622	3.4019 - 3 3.4359 3.4702 3.5309 3.5752 3.6109 3.6469 3.6832 3.7199	2.16366 + 1 2.18528 2.20710 2.22914 2.25139 2.27385 2.27654 2.31944 2.31945 2.34256 2.36591	3.1876 - 6 3.1884 3.1893 3.1901 3.1909 3.1917 3.1917 3.1925 3.1934 3.1942 3.1950	7.83687 - 1 7.83889 7.84091 7.84293 7.84495 7.84497 7.84899 7.85101 7.85303 7.85505
81000 81200 81400 81600 81800 82000 82200 82400 82600 82600	81316 81517 81719 81921 82122 82324 82525 82727 82928 83130	978.50 978.63 978.76 978.90 979.03 979.17 979.30 979.44 979.57	9.7252 - 6 9.7274 9.7296 9.7319 9.7351 9.7363 9.7363 9.7408 9.7430 9.7452	8.08807 - 1 8.08993 8.09178 8.09364 8.09549 8.09734 8.09734 8.10105 8.10291 8.10476	3.7570 - 3 3.7944 3.8322 3.8704 3.9089 3.9478 3.9871 4.0267 4.0668 4.1072	2.38949 + 1 2.41329 2.43733 2.46159 2.51083 2.53581 2.54103 2.56103 2.5649 2.61220	3.1958 - 6 3.1966 3.1975 3.1983 3.1991 3.1999 3.2007 3.2016 3.2024 3.2032	7.85706 - 1 7.85908 7.86110 7.86312 7.86514 7.867116 7.86917 7.87119 7.87321 7.87523
83000 83200 83400 83600 83800 84000 84400 84400 84600 84800	83332 83533 83735 83737 84138 84340 84541 84743 84745 85146	979.84 979.98 980.11 980.25 980.38 980.51 980.65 980.78 980.79	9.7475 - 6 9.7497 9.7519 9.7541 9.7564 9.7586 9.7608 9.7630 9.7653 9.7653	8.10661 - 1 8.10846 8.11032 8.11217 8.11402 8.11587 8.11773 8.11773 8.12143 8.12143	4.1880 - 3 4.1892 4.2308 4.2728 4.3152 4.3580 4.4013 4.4449 4.8890	2.63816 + 1 2.66437 2.69083 2.71754 2.74452 2.77175 2.79925 2.82701 2.85504 2.88334	3.2040 - 6 3.2048 3.2057 3.2065 3.2073 3.2081 3.2090 3.2098 3.2106 3.2114	7.87724 - 1 7.87926 7.88128 7.88330 7.88531 7.88733 7.88935 7.89136 7.89338 7.89540
85000 85200 85400 85400 85800 86000 86400 86400 86400 86400	85348 85550 85751 85953 86154 86356 86558 86759 86761 87163	981.19 981.32 981.46 981.59 981.72 981.86 981.99 982.13 982.26 982.40	9.7697 - 6 9.7719 9.7742 9.7764 9.7786 9.7808 9.7831 9.7853 9.7875 9.7897	8.12513 - 1 8.12698 8.12883 8.13068 8.13253 8.13438 8.13438 8.13808 8.13993 8.14178	4.5784 - 3 4.6238 4.6696 4.7158 4.7625 4.8096 4.8572 4.9052 4.9537 5.0027	2.91191 + 1 2.94076 2.94088 2.99929 3.02897 3.05895 3.08921 3.11976 3.15061 3.18175	3.2122 - 6 3.2131 3.2139 3.2147 3.2155 3.2163 3.2172 3.2180 3.2188 3.2196	7.89741 - 1 7.89943 7.90145 7.90346 7.90548 7.90749 7.90951 7.91153 7.91354 7.91556
87000 87200 87400 87600 87600 88000 88200 88400 88400 88600 88800	87364 87566 87768 87970 88171 88373 88575 88776 88978 89180	982.53 982.66 982.80 982.93 983.07 983.20 983.33 983.47 983.47 983.74	9.7920 - 6 9.7942 9.7964 9.7986 9.8008 9.8031 9.8075 9.8075 9.8075	8.14363 - 1 8.14547 8.14732 8.14917 8.15102 8.15287 8.15471 8.15656 8.15841 8.16025	5.0521 - 3 5.1020 5.1524 5.2033 5.2547 5.3065 5.3589 5.4117 5.4651 5.5190	3.21319 + 1 3.24494 3.27699 3.30934 3.34201 3.37499 3.40829 3.44190 3.47584 3.51010	3.2204 - 6 3.2213 3.2221 3.2229 3.2237 3.2245 3.2245 3.2253 3.2262 3.2270 3.2270	7.91757 - 1 7.91959 7.92160 7.92362 7.92363 7.92765 7.92966 7.93168 7.93369 7.93369
89000 89200 89400 89600 89800 90000 90200 90400 90600 90800	89381 89583 89785 89987 90188 90390 90592 90794 90995	983.87 984.00 984.14 984.27 984.41 984.54 984.67 984.67 984.98	9.8142 - 6 9.8164 9.8186 9.8208 9.8230 9.8253 9.8275 9.8277 9.8341	8.16210 - 1 8.16395 8.16579 8.16764 8.16764 8.17133 8.17317 8.17502 8.17686 8.17871	5.5733 - 3 5.6283 5.6837 5.7397 5.7962 5.8532 5.9108 5.9689 6.0276 6.0869	3.54469 + 1 3.57962 3.61487 3.65047 3.65047 3.72268 3.72268 3.75931 3.79628 3.83361 3.87130	3.2286 - 6 3.2294 3.2303 3.2311 3.2319 3.2327 3.2335 3.2344 3.2352 3.2360	7.93772 - 1 7.93973 7.94175 7.94376 7.94577 7.94779 7.94980 7.95181 7.95383 7.95584

		Sound		RIC ALTITU				
Altit	ude	speed	Coefficient	of viscosity	Kinematio	viscosity	Thermal o	conductivity
Z, ft	H, ft	C _s , ft sec⁻'	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft 2 sec $^-$ '	$\frac{\eta}{\eta_0}$	k , BTU ft ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
75000 75200 75400 75600 75800 76000 76400 76400 76600 76800	74731 74930 75128 75327 75525 75724 75923 76121 76320 76518	974.26 974.40 974.53 974.67 974.80 974.93 975.07 975.20 975.34 975.47	9.6551 - 6 9.6573 9.6576 9.6618 9.6640 9.6662 9.6684 9.6707 9.6729	8.02982 - 1 8.03166 8.03351 8.03536 8.03721 8.03906 8.04090 8.04275 8.04460 8.04644	2.7498 - 3 2.7772 2.8049 2.8329 2.8611 2.8897 2.9184 2.9475 2.9769 3.0065	1.74889 + 1 1.76634 1.78396 1.80175 1.81971 1.83784 1.85615 1.87464 1.89330 1.91215	3.1701 - 6 3.1709 3.1717 3.1725 3.1733 3.1741 3.1750 3.1758 3.1766 3.1774	7.79374 - 1 7.79574 7.79775 7.79976 7.80177 7.80377 7.80378 7.80779 7.80979 7.81180
77000 77200 77400 77600 77800 78000 78200 78400 78400 78600 78800	76717 76915 77114 77312 77511 77709 77908 78106 78305 78503	975.61 975.74 975.87 976.01 976.14 976.28 976.41 976.54 976.68	9.6773 - 6 9.6795 9.6818 9.6840 9.6862 9.6884 9.6906 9.6929 9.6951	8.04829 - 1 8.05014 8.05198 8.05383 8.05567 8.05752 8.05936 8.06121 8.06305 8.06490	3.0364 - 3 3.0666 3.0971 3.1279 3.1590 3.1590 3.2220 3.2540 3.2863 3.3190	1.93117 + 1 1.95038 1.96978 1.98936 2.00913 2.02910 2.04925 2.06960 2.09014 2.11089	3.1782 - 6 3.1799 3.1799 3.1807 3.1815 3.1823 3.1831 3.1839 3.1838	7.81381 - 1 7.81581 7.81782 7.81982 7.82183 7.82384 7.82384 7.82584 7.82785 7.82985 7.83186
79000 79200 79400 79600 79800 80000 80200 80400 80400 80600	78702 78900 79099 79297 79496 79694 79893 80091 80290 80488	976.95 977.08 977.21 977.35 977.48 977.62 977.75 977.88 978.02 978.15	9.6995 - 6 9.7017 9.7039 9.7062 9.7084 9.7106 9.7128 9.7150 9.7172	8.06674 - 1 8.06858 8.07043 8.07227 8.07411 8.07596 8.07780 8.07764 8.08148 8.08332	3.3519 - 3 3.3851 3.4187 3.4526 3.4068 3.5213 3.5562 3.55914 3.6270 3.6628	2.13183 + 1 2.15297 2.17432 2.19587 2.21763 2.23960 2.26178 2.28417 2.30678 2.32960	3.1864 - 6 3.1872 3.1880 3.1888 3.1896 3.1905 3.1913 3.1921 3.1929 3.1937	7.83386 - 1 7.83587 7.83787 7.83787 7.84188 7.84388 7.84388 7.84789 7.84789 7.84789
81000 81200 81400 81600 81800 82200 82400 82600 82600	80687 80885 81083 81282 81480 81679 81877 82076 82274	978.28 978.42 978.55 978.69 978.82 978.95 979.09 979.22 979.35	9.7217 - 6 9.7239 9.7261 9.7283 9.7305 9.7327 9.7349 9.7372 9.7374 9.7416	8.08516 - 1 8.08701 8.08885 8.09069 8.09253 8.09437 8.09621 8.09805 8.09989	3.6991 - 3 3.7357 3.7726 3.8099 3.8855 3.8855 3.9239 3.9626 4.0017 4.0412	2.35265 + 1 2.37591 2.379940 2.42311 2.44705 2.47122 2.49562 2.52026 2.54513 2.57024	3.1945 - 6 3.1953 3.1962 3.1970 3.1978 3.1986 3.1994 3.2002 3.2011	7.85390 - 1 7.85590 7.85791 7.85991 7.86191 7.86392 7.86392 7.86792 7.86992 7.87192
83000 83200 83400 83600 84000 84200 84400 84600 84800	82671 82869 83068 83266 83465 83663 83861 84060 84258 84457	979.62 979.75 979.89 980.02 980.15 980.29 980.42 980.55 980.69 980.82	9.7438 - 6 9.7460 9.7482 9.7504 9.7526 9.75548 9.7570 9.7593 9.7615 9.7637	8.10356 - 1 8.10540 8.10724 8.10728 8.110908 8.11275 8.11275 8.11459 8.11643 8.11643 8.11626	4.0811 - 3 4.1213 4.1619 4.2029 4.2243 4.2861 4.3283 4.3709 4.4573	2.59558 + 1 2.62117 2.64701 2.67309 2.69943 2.72601 2.75285 2.77994 2.80729 2.83491	3.2027 - 6 3.2035 3.2043 3.2051 3.2051 3.2067 3.2067 3.2076 3.2084 3.2092	7.87393 - 1 7.87593 7.87793 7.87993 7.88193 7.88393 7.88593 7.88593 7.88993 7.89193
85000 85200 85400 85600 85800 86200 86400 86400 86400	84655 84853 85052 85250 85448 85647 85845 86043 86242 86440	980.95 981.09 981.22 981.35 981.49 981.62 981.75 981.89 982.02 982.15	9.7659 - 6 9.7681 9.7703 9.7725 9.7747 9.7747 9.7791 9.7813 9.7835 9.7835	8.12194 - 1 8.12377 8.12561 8.12744 8.12928 8.13111 8.13295 8.13478 8.13662 8.13845	4.5012 - 3 4.5454 4.5901 4.6352 4.6807 4.7267 4.7731 4.8199 4.88672 4.9149	2.86278 + 1 2.89093 2.91934 2.94802 2.97697 3.00620 3.03571 3.06550 3.09558 3.12594	3.2108 - 6 3.2116 3.2124 3.2133 3.2141 3.2149 3.2157 3.2165 3.2173 3.2181	7.89394 - 1 7.89594 7.89594 7.89793 7.89994 7.90193 7.90393 7.90393 7.90593 7.90993 7.90993 7.91193
87000 87200 87400 87600 87600 88000 88200 88400 88600 88600	86639 86837 87035 87234 87432 87430 87829 88027 88225 88423	982.29 982.42 982.55 982.69 982.82 982.95 983.09 983.22 983.35 983.48	9.7879 - 6 9.7901 9.7924 9.7946 9.7968 9.7990 9.8012 9.8034 9.8056 9.8078	8.14028 - 1 8.14212 8.14395 8.14578 8.14762 8.14945 8.15128 8.15311 8.15494 8.15678	4.9631 - 3 5.0118 5.0609 5.1105 5.1605 5.2110 5.2620 5.3135 5.3655 5.4180	3.15659 + 1 3.18753 3.21876 3.25029 3.28212 3.31426 3.34669 3.37944 3.41250 3.44586	3.2189 - 6 3.2198 3.2206 3.2214 3.2222 3.2230 3.2238 3.22246 3.2255 3.2263	7.91393 - 1 7.91593 7.91793 7.91992 7.92192 7.92392 7.92592 7.92592 7.92792 7.92791 7.93191
89000 89200 89400 89600 90800 90800 90400 90600 90800	88622 88820 89018 89217 89415 89613 89812 90010 90208 90406	983.62 983.75 983.88 984.02 984.15 984.28 984.41 984.55 984.68	9.8100 - 6 9.8122 9.8144 9.8166 9.8188 9.8210 9.8232 9.8234 9.8276 9.8276	8.15861 - 1 8.16044 8.16227 8.16410 8.16593 8.16776 8.16959 8.17142 8.17325 8.17508	5.4709 - 3 5.5244 5.5784 5.6328 5.6878 5.7434 5.7934 5.8560 5.9131	3.47955 + 1 3.51356 3.54789 3.58254 3.61752 3.65283 3.68848 3.72446 3.76079 3.79746	3.2271 - 6 3.2279 3.2287 3.2295 3.2303 3.2311 3.2319 3.2328 3.2336 3.2344	7.93391 - 1 7.93591 7.93790 7.93990 7.94190 7.94389 7.94589 7.94789 7.94788 7.94788

TABLE XI.—Continued

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	tude	Sound speed		of viscosity	Kinematic	viscosity	Thermal o	onductivity
H, ft	Z, ft	C _s ,	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η, ft² sec⁻¹	$\frac{\eta}{\eta_0}$	k , BTU ff ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
91000 91200 91400 91600 91800 92000 92200 92400 92600 92800	91399 91601 91802 92004 92206 92408 92609 92811 93013 93215	985.21 985.34 985.48 985.61 985.74 985.88 986.01 986.15 986.28	9.8364 - 6 9.8386 9.8408 9.8430 9.8452 9.8474 9.8697 9.8519 9.8541 9.8563	8.18055 - 1 8.18240 8.18424 8.18608 8.18777 8.18777 8.19161 8.19345 8.19530 8.19714	6.1467 - 3 6.2071 6.2680 6.3296 6.3917 6.4545 6.5178 6.5817 6.6463 6.7114	3.90934 + 1 3.94775 3.98653 4.02567 4.06519 4.10509 4.14536 4.18603 4.22708 4.26852	3.2368 - 6 3.2376 3.2385 3.2393 3.2401 3.2409 3.2417 3.2425 3.2425 3.2434	7.95785 - 1 7.95987 7.96188 7.96389 7.96590 7.96792 7.96993 7.97194 7.97395 7.97596
93000 93200 93400 93600 93600 94000 94200 94400 94600 94800	93417 93618 93820 94022 94224 94426 94627 94829 95031 95233	986.55 986.68 986.81 986.95 987.08 987.21 987.35 987.48 987.62 987.75	9.8585 - 6 9.8607 9.8629 9.8652 9.8674 9.8596 9.8718 9.8740 9.8762 9.8784	8.19898 - 1 8.20082 8.20266 8.20451 8.20635 8.20819 8.21003 8.21187 8.21371 8.21555	6.7772 - 3 6.8436 6.9106 6.9783 7.0466 7.1156 7.1852 7.2555 7.3264 7.3981	4.31035 + 1 4.35258 4.39522 4.43826 4.48171 4.52557 4.56985 4.61456 4.65968 4.70524	3.2450 - 6 3.2458 3.2466 3.2475 3.2483 3.2491 3.2507 3.2507 3.2515 3.2524	7.97798 - 1 7.97999 7.98200 7.98401 7.98602 7.98803 7.99004 7.99206 7.99407 7.99407
95000 95200 95400 95600 95800 96000 96200 96400 96600 96800	95435 95637 95838 96040 96242 96444 96646 96848 97050 97251	987.88 988.02 988.15 988.28 988.42 988.55 988.68 988.82 988.95 989.08	9.8807 - 6 9.8829 9.8851 9.8873 9.8875 9.8917 9.8939 9.8961 9.8983 9.9006	8.21739 - 1 8.21923 8.22107 8.22291 8.22475 8.22659 8.22659 8.23026 8.23210 8.23394	7.4704 - 3 7.5434 7.6171 7.6915 7.7665 7.8424 7.9189 7.9961 8.0741	4.75123 + 1 4.79765 4.84452 4.89183 4.93959 4.98781 5.03648 5.08561 5.13521 5.18527	3.2532 - 6 3.2540 3.2556 3.2556 3.2565 3.2573 3.2581 3.2589 3.2597 3.2605	7.99809 - 1 8.00010 8.00211 8.00412 8.00413 8.00814 8.01015 8.01216 8.01216
97000 97200 97400 97600 97800 98200 98400 98600 98800	97453 97655 97857 98057 98261 98463 98665 98867 99068 99270	989.22 989.35 989.48 989.62 989.75 989.88 990.02 990.15 990.28 990.42	9.9028 - 6 9.9050 9.9072 9.9094 9.9116 9.9138 9.9160 9.9182 9.9204 9.9226	8.23578 - 1 8.23761 8.237945 8.24129 8.24312 8.24496 8.24680 8.24683 8.25047 8.25231	8.2323 - 3 8.3125 8.3935 8.4753 8.5578 8.6411 8.7252 8.8057 8.8957	5.23582 + 1 5.28684 5.33834 5.39034 5.49580 5.59928 5.69327 5.65777 5.71278	3.2614 - 6 3.2622 3.2630 3.2638 3.2654 3.2654 3.2653 3.2671 3.2679 3.2687	8-01819 - 1 8-02020 8-02221 8-02422 8-02622 8-02823 8-03024 8-033225 8-03426 8-03627
99000 99200 99400 99800 100000 100200 100400 100600 100800	99472 99674 99876 100078 100280 100482 100684 101088 101290	990.55 990.68 990.81 990.95 991.08 991.21 991.35 991.48 991.61	9.9248 - 6 9.9270 9.9223 9.9315 9.9337 9.9359 9.9381 9.9403 9.9425 9.9447	8.25414 - 1 8.255781 8.25761 8.25765 8.26148 8.26331 8.26515 8.26698 8.26682 8.27065	9.0696 - 3 9.1577 9.2467 9.3365 9.4271 9.5187 9.6110 9.7043 9.7984 9.8934	5.76832 + 1 5.82437 5.88096 5.93808 5.99574 6.05395 6.11270 6.17200 6.23187 6.29230	3.2695 - 6 3.2703 3.2712 3.2720 3.2728 3.2736 3.2736 3.2752 3.2761 3.2769	8.03828 - 1 8.04028 8.04229 8.04430 8.04631 8.04631 8.05032 8.05032 8.05233 8.05434 8.05635
101000 101200 101400 101600 101800 102000 102200 102400 102600 102800	101492 101694 101895 102097 102299 102501 102703 102905 103107 103309	991.88 992.01 992.14 992.28 992.41 992.54 992.68 992.81 992.94 993.07	9.9469 - 6 9.9491 9.9513 9.9535 9.9557 9.9557 9.9601 9.9603 9.9645 9.9667	8.27248 - 1 8.27432 8.27615 8.27798 8.27798 8.289165 8.28348 8.28348 8.28531 8.28714 8.28697	9.9893 - 3 1.0086 - 2 1.0188 1.0283 1.0382 1.0883 1.0584 1.0686 1.0770	6.35331 + 1 6.41488 6.47704 6.53978 6.60311 6.66704 6.73157 6.79670 6.86245 6.92881	3.2777 - 6 3.2785 3.2793 3.2801 3.2810 3.2818 3.2826 3.2834 3.2834 3.2842 3.2850	8.05835 - 1 8.06036 8.06237 8.06437 8.06638 8.06638 8.06839 8.07039 8.07240 8.07241
103000 103200 103400 103600 103800 104000 104200 104400 104600 104800	103511 103713 103915 104117 104319 104521 104723 104925 105127	993.21 993.34 993.47 993.60 993.74 993.87 994.00 994.14 994.27 994.80	9.9689 - 6 9.9711 9.9733 9.9755 9.9777 9.9799 9.9821 9.9843 9.9865 9.9887	8.29081 - 1 8.29264 8.29447 8.29630 8.29613 8.29996 8.30179 8.30362 8.30545 8.30728	1.1000 - 2 1.1106 1.1213 1.1322 1.1531 1.1541 1.1653 1.1765 1.1879 1.1993	6.99580 + 1 7.06343 7.13168 7.20057 7.27012 7.34031 7.41116 7.48269 7.55487 7.62774	3.2859 - 6 3.2867 3.2875 3.2883 3.2891 3.2899 3.2907 3.2916 3.2924 3.2932	8.07842 - 1 8.08043 8.08243 8.08844 8.08644 8.08845 8.09045 8.09246 8.09246 8.09446
105000 105500 106000 106500 107000 107500 108500 108500 109000 109500	105531 106036 106542 107047 107557 108057 108562 109067 109573 110078	994.55 995.48 996.40 997.33 998.25 999.18 1000.10 1001.02 1001.95 1002.87	9.9912 - 6 1.0007 - 5 1.0022 1.0037 1.0053 1.0068 1.0083 1.0099 1.0114	8.30932 - 1 8.32212 8.33490 8.34768 8.36045 8.37320 8.38595 8.37868 8.41140 8.42412	1.2109 - 2 1.2430 1.2759 1.3096 1.3441 1.3794 1.4156 1.4527 1.4007	7.70173 + 1 7.90580 8.11487 8.32906 8.54849 8.77327 9.00352 9.20352 9.23937 9.48094 9.72835	3.2941 - 6 3.2998 3.3055 3.3112 3.3169 3.3226 3.3283 3.3340 3.3397 3.3454	8.09871 - 1 8.11274 8.12677 8.14079 8.15480 8.16881 8.18281 8.19681 8.21080 8.22478

				RIC ALTITU			,	
Alti	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
Z, ft	H, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η, ft² sec-'	$\frac{\eta}{\eta_0}$	k, BTU ft ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
91000 91200 91400 91600 91800 92000 92400 92400 92600 92800	90605 90803 91001 91199 91398 91596 91794 91992 92191 92389	984.94 985.08 985.21 985.34 985.61 985.67 985.87 985.87 986.01	9.8320 - 6 9.8342 9.8364 9.8386 9.8408 9.8430 9.8452 9.8474 9.8474 9.8518	8.17691 - 1 8.17873 8.18056 8.18239 8.18422 8.18404 8.18787 8.18970 8.19973 8.19335	6.0290 - 3 6.0877 6.1870 6.2069 6.2673 6.3283 6.3899 6.4521 6.5148 6.5781	3.83% 7 + 1 3.8718% 3.90956 3.9%763 3.98607 4.02486 4.00403 4.10356 4.143%7 4.18375	3.2352 - 6 3.2360 3.2368 3.2376 3.2384 3.2393 3.2401 3.2409 3.2417 3.2425	7.95387 - 1 7.95587 7.95786 7.95986 7.96185 7.96584 7.96584 7.96784 7.96983 7.97183
93000 93200 93400 93600 94000 94000 94400 94600 94800	92587 92785 92984 93182 93380 93578 93776 93975 94173 94371	986.27 986.40 986.54 986.67 986.80 986.93 987.07 987.20 987.33 987.46	9.8539 - 6 9.8561 9.8583 9.8605 9.8627 9.8649 9.8671 9.8693 9.8715 9.8737	8.19518 - 1 8.19700 8.19883 8.20065 8.20248 8.20430 8.20613 8.20795 8.20795 8.21160	6.6421 - 3 6.7066 6.7717 6.8375 6.9039 6.9709 7.0385 7.1068 7.1757	4.22441 + 1 4.26546 4.30689 4.34871 4.39093 4.43354 4.47656 4.51998 4.56380 4.60804	3.2433 - 6 3.2441 3.2449 3.2457 3.2466 3.2474 3.2482 3.2490 3.2498 3.2506	7.97382 - 1 7.97582 7.97781 7.97780 7.98379 7.98379 7.98578 7.98977 7.99176
95000 95200 95400 95600 95800 96000 96200 96400 96600 96800	94569 94767 94966 95164 95362 95560 95758 95956 96155 96353	987.59 987.73 987.86 987.99 988.12 988.26 988.39 988.52 988.65 988.78	9.8759 - 6 9.8781 9.8803 9.8825 9.8847 9.8868 9.8890 9.8912 9.8934 9.8956	8.21343 - 1 8.21525 8.21707 8.21890 8.22072 8.22254 8.22254 8.222518 8.222618 8.22801	7.3155 - 3 7.3863 7.4579 7.5301 7.6030 7.6765 7.7508 7.8258 7.9014 7.9778	4.65270 + 1 4.69778 4.74327 4.78920 4.83535 4.92958 4.97726 5.02538 5.07396	3.251h - 6 3.2522 3.2530 3.2539 3.2537 3.2555 3.2563 3.2571 3.2579 3.2587	7.99376 - 1 7.99575 7.99774 7.99973 8.00173 8.00571 8.00571 8.00570 8.00769
97000 97200 97400 97600 97800 98000 98200 98400 98600 98800	96551 96749 96947 97145 97343 97542 97740 97938 98136 98334	988.92 989.05 989.18 989.31 989.58 989.58 989.71 989.84 989.97	9.8978 - 6 9.9000 9.9022 9.9044 9.9087 9.9109 9.9131 9.9153 9.9175	8.23165 - 1 8.23347 8.23529 8.23711 8.23893 8.24075 8.24257 8.24439 8.24439 8.24431	8.0549 - 3 8.1327 8.2112 8.2905 8.3705 8.4513 8.5328 8.6151 8.6982 8.7820	5.12298 + 1 5.17247 5.22242 5.27284 5.32374 5.37510 5.42695 5.47928 5.53211 5.58543	3.2595 - 6 3.2601 3.2611 3.2620 3.2628 3.2636 3.2644 3.2652 3.2660 3.2668	8.01367 - 1 8.01567 8.01766 8.01965 8.02164 8.02363 8.02562 8.02261 8.02960 8.03159
99000 99200 99400 99600 99800 100000 100200 100400 100600 100800	98532 98730 98928 99127 99325 99523 99721 99919 100117	990.24 990.37 990.50 990.63 990.76 990.90 991.03 991.16 991.29	9.9197 - 6 9.9219 9.9241 9.9262 9.9284 9.9306 9.9328 9.9350 9.9372 9.9393	8.24985 - 1 8.25167 8.25548 8.25530 8.25712 8.25894 8.26075 8.26257 8.26439 8.26620	8.8666 - 3 8.9520 9.0382 9.1252 9.2130 9.3017 9.3912 9.4815 9.5726 9.6646	5.63924 + 1 5.67356 5.74838 5.80372 5.85957 5.91595 5.97285 6.03028 6.08025 6.14676	3.2676 - 6 3.2684 3.2692 3.2700 3.2709 3.2717 3.2725 3.2733 3.2741 3.2749	8.03358 - 1 8.03557 8.03756 8.03756 8.0455 8.04551 8.04750 8.04750 8.04949
10 1000 10 1200 10 1400 10 1600 10 1800 10 2000 10 2200 10 2400 10 2600 10 2800	100513 100711 100909 101107 101305 101504 101702 101900 102098 102296	991.55 991.69 991.82 991.95 992.08 992.21 992.34 992.61 992.74	9.9415 - 6 9.9437 9.9459 9.9481 9.9503 9.9524 9.9546 9.9568 9.9568	8.26802 - 1 8.26984 8.27165 8.27347 8.27528 8.27710 8.27891 8.28073 8.28073 8.28254 8.28436	9.7574 - 3 9.8512 9.9457 1.0041 - 2 1.0138 1.0235 1.0333 1.0432 1.0532 1.0532	6.20581 + 1 6.26542 6.32557 6.38629 6.44758 6.50943 6.57186 6.63487 6.63487 6.676266	3.2757 - 6 3.2765 3.2773 3.2781 3.2789 3.2797 3.2806 3.2814 3.2822 3.2830	8.053%7 - 1 8.055%6 8.055%6 8.055%8 8.061%2 8.063%1 8.06539 8.06539 8.06738 8.06937
103000 103200 103400 103600 103600 104000 104200 104400 104600 104800	102494 102692 102890 103088 103286 103484 103682 103880 104078 104276	992.87 993.00 993.13 993.26 993.40 993.53 993.66 993.79 993.92	9.9634 - 6 9.9655 9.9677 9.9699 9.9721 9.9743 9.9764 9.9786 9.9808 9.9830	8.28617 - 1 8.28798 8.28780 8.29761 8.29342 8.29523 8.29705 8.30067 8.30047	1.0735 - 2 1.0838 1.0941 1.1046 1.1152 1.1258 1.1366 1.1475 1.1584 1.1695	6.82744 + 1 6.89282 6.95882 7.02543 7.09265 7.16050 7.22998 7.29809 7.36784 7.43824	3.2838 - 6 3.2846 3.2854 3.2862 3.2870 3.2878 3.2886 3.2894 3.2903 3.2911	8.07334 - 1 8.07533 8.07731 8.07731 8.07930 8.08129 8.08526 8.08526 8.08724 8.08923 8.09121
105000 105500 106000 106500 107500 108000 108500 109500	10447% 104969 10546% 105959 106454 106949 10744% 107938 108433 108928	994.18 994.51 995.41 996.33 997.24 998.16 999.07 999.99 1000.90 1001.81	9-9851 - 6 9-9906 - 5 1-0021 1-0036 1-0051 1-0066 1-0081 1-0097	8.30429 - 1 8.30882 8.32119 8.33385 8.34650 8.35914 8.37176 8.38438 8.39698 8.40957	1.1807 - 2 1.2091 1.2407 1.2732 1.3064 1.3405 1.3754 1.4111 1.4477	7.50929 + 1 7.68982 7.89090 8.097%7 8.3090% 8.52572 8.74761 8.97%85 9.20753 9.44580	3.2919 - 6 3.2939 3.2994 3.3051 3.3107 3.3163 3.3220 3.3276 3.3332 3.3389	8.09320 - 1 8.09816 8.11173 8.12561 5.13949 8.15336 8.16723 8.18108 8.19494

Alti	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	onductivity
H, ft	Z, ft	C _s , ft sec ⁻¹	μ , Ib ft sec	$\frac{\mu}{\mu_0}$	η, ft² sec-¹	$\frac{\eta}{\eta_0}$	k, BTU ff ⁻¹ sec ^{-†} (°R) ^{-†}	k k _O
110000 110500 111000 111500 112000 112500 113500 114000 114500	114121 114627	1003.79 1004.71 1005.62 1006.54 1007.46 1008.37 1009.29 1010.20 1011.11	1.0145 - 5 1.0160 1.0175 1.0190 1.0205 1.0221 1.0236 1.0251 1.0266	8.43682 - 1 8.44951 8.46220 8.47487 8.48753 8.50018 8.51282 8.52546 8.53808 8.55069	1.5694 - 2 1.6102 1.6520 1.6948 1.7386 1.7835 1.8294 1.8764 1.9246	9.98174 + 1 1.02412 + 2 1.05070 1.07791 1.10578 1.13431 1.16353 1.19344 1.22406 1.25541	3.3511 - 6 3.3568 3.3624 3.3681 3.3738 3.3795 3.3851 3.3908 3.3965 3.4021	8.23876 - 1 8.25274 8.26671 8.28067 8.29463 8.30858 8.32252 8.33646 8.35040 8.36433
115000 115500 116000 116500 117000 117500 118000 118500 119000	119683	1012.9k 1013.85 1014.76 1015.67 1016.58 1017.48 1018.39 1019.30 1020.20 1021.11	1.0297 - 5 1.0312 1.0327 1.0342 1.0357 1.0357 1.0387 1.0387 1.0417	8.56329 - 1 8.57588 8.58846 8.60103 8.61359 8.62614 8.63868 8.65121 8.66373 8.67624	2.0243 - 2 2.0760 2.1289 2.1830 2.2384 2.2951 2.3531 2.4125 2.4733 2.5355	1.28750 + 2 1.32036 1.35399 1.38841 1.42364 1.45970 1.49661 1.53438 1.57303	3.4078 - 6 3.4191 3.4248 3.4304 3.4361 3.4417 3.4474 3.4530 3.4587	8.37825 - 1 8.39217 8.40608 8.41999 8.43389 8.44778 8.46167 8.47555 8.48943 8.50330
120000 120500 121000 121500 122500 122500 123500 123500 124000 124500	122718 123224 123730 124236	1022.01 1022.91 1023.81 1024.72 1025.62 1026.52 1027.41 1028.31 1029.21 1030.11	1.0447 - 5 1.0462 1.0477 1.0492 1.0507 1.0522 1.0537 1.0552 1.0567 1.0567	8.68874 - 1 8.70123 8.71371 8.72618 8.73864 8.75109 8.76354 8.77597 8.78839 8.80080	2.5991 - 2 2.6642 2.7309 2.7990 2.8688 2.9401 3.0131 3.0131 3.1642 3.2424	1.65306 • 2 1.69448 1.73685 1.78021 1.82457 1.86996 1.91638 2.01247 2.06217	3.4643 - 6 3.4700 3.4756 3.4812 3.4869 3.4925 3.4981 3.5037 3.5094 3.5150	8.51717 - 1 8.53103 8.54489 8.55873 8.57258 8.58642 8.60025 8.61407 8.62789 8.64171
125000 125500 126000 126500 127000 127500 128500 128500 129500	125754 126260 126766 127272 127778 128284 128791 129297 129803 130309	1031.00 1031.90 1032.79 1033.68 1034.58 1035.47 1036.36 1037.25 1038.14 1039.03	1.0597 - 5 1.0612 1.0627 1.0642 1.0657 1.0671 1.0686 1.0701 1.0716	8.81320 - 1 8.82559 8.83797 8.85035 8.86271 8.87506 8.88740 8.89974 8.91206 8.92438	3.3223 - 2 3.4040 3.4877 3.5732 3.6606 3.7501 3.8415 3.9351 4.0307 4.1285	2.11300 + 2 2.16500 2.21818 2.27257 2.32819 2.38508 2.44325 2.50273 2.56356 2.62575	3.5206 - 6 3.5262 3.5318 3.5374 3.53430 3.5486 3.5542 3.5598 3.5654 3.5710	8.65552 - 1 8.66932 8.68312 8.69691 8.71070 8.72448 8.73826 8.75203 8.76579 8.77955
130000 130500 131000 131500 132000 132500 133000 133500 134000	130816 131322 131828 132335 132841 133347 133854 134360 134867 135373	1039.91 1040.80 1041.69 1042.57 1043.46 1044.34 1045.23 1046.11 1046.99 1047.87	1.0746 - 5 1.0760 1.0775 1.0779 1.0805 1.0819 1.0834 1.0849 1.0863	8.93668 - 1 8.94898 8.96126 8.97354 8.98580 8.99806 9.01031 9.02254 9.03477 9.04699	4.2285 - 2 4.3307 4.4352 4.5421 4.6513 4.7630 4.8771 4.9938 5.1131 5.2350	2.68935 + 2 2.75436 2.82084 2.88880 2.95827 3.02930 3.10190 3.17611 3.25196 3.32950	3.5766 - 6 3.5822 3.5878 3.5934 3.5990 3.6046 3.6101 3.6157 3.6213 3.6269	8.79330 - 1 8.80705 8.82079 8.83452 8.84825 8.86198 8.87569 8.87569 8.88941 8.90311 8.91682
135000 135500 136500 136500 137500 138000 138500 139500	135880 136386 136893 137399 137906 138413 138919 139426 139933 140440	1048.75 1049.63 1050.51 1051.39 1052.27 1053.14 1054.02 1054.89 1055.77	1.0893 - 5 1.0908 1.0922 1.0937 1.0951 1.0966 1.0981 1.0995 1.1010	9.05920 - 1 9.07140 9.08359 9.09577 9.10794 9.12011 9.13226 9.14440 9.15654 9.16866	5.3596 - 2 5.4869 5.6171 5.7501 5.8860 6.0249 6.1668 6.3118 6.4600 6.6114	3.40874 + 2 3.48974 3.57251 3.65710 3.74355 3.83188 3.92215 4.01439 4.10863 4.20493	3.6324 - 6 3.6380 3.6436 3.6491 3.6547 3.6603 3.6658 3.6714 3.67769	8.93051 - 1 8.94420 8.95788 8.97156 8.98524 8.99890 9.01256 9.02622 9.03987 9.05351
140000 140500 141000 141500 142500 143000 143500 144500	140946 141453 141460 142467 142974 143480 143987 144494 145001 145508	1057.52 1058.39 1059.26 1060.13 1061.00 1061.87 1062.74 1063.61 1064.47 1065.34	1.1039 - 5 1.1054 1.1068 1.1083 1.1097 1.1112 1.1126 1.1141 1.1155 1.1170	9.18078 - 1 9.19289 9.20498 9.21707 9.22915 9.24122 9.25328 9.26533 9.27737 9.28941	6.7661 - 2 6.9242 7.0856 7.2506 7.4191 7.5912 7.7670 7.9466 8.1301 8.3174	4.30331 + 2 4.40383 4.50652 4.61142 4.71859 4.82806 4.93989 5.05411 5.17078 5.28995	3.6880 - 6 3.6936 3.6991 3.7046 3.7102 3.7157 3.7213 3.7268 3.7323 3.7378	9.06715 - 1 9.08079 9.09441 9.10804 9.12165 9.13526 9.14887 9.16247 9.17606 9.18965
145000 145500 146000 146500 147000 147500 148000 148500 149500	146015 146522 147029 147537 148044 148551 149058 149565 150072 150580	1066.21 1067.07 1067.94 1068.80 1069.66 1070.53 1071.39 1072.25 1073.11 1073.97	1.1184 - 5 1.1199 1.1213 1.1227 1.1242 1.1256 1.1271 1.1285 1.1299 1.1314	9.30143 - 1 9.31345 9.32545 9.33745 9.34944 9.36141 9.37338 9.38535 9.39730 9.40924	8.5088 - 2 8.7042 8.9038 9.1076 9.3158 9.5283 9.7454 9.9670 1.0193 - 1	5.41165 + 2 5.53595 5.66289 5.79253 5.92492 6.06010 6.19815 6.33910 6.48303 6.62997	3.7434 - 6 3.7489 3.7549 3.7599 3.7654 3.7710 3.7765 3.7820 3.7875 3.7830	9.20323 - 1 9.21680 9.23038 9.24394 9.25750 9.27105 9.28460 9.29814 9.31168 9.32521

A l+id	tude	Sound	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	conductivity
Ailli		speed						
Z, ft	H, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	$\eta,$ ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k, BTU ft ⁻¹ sec ⁻¹ (°R) ⁻¹	$\frac{k}{k_0}$
110000 110500 111000 111500 112500 113500 113500 114000 114500	109423 109918 110412 110907 111402 111896 112391 112886 113380	1002.72 1003.63 1004.54 1005.45 1006.36 1007.27 1008.17 1009.08 1009.98 1010.89	1.0127 - 5 1.0142 1.0157 1.0157 1.0187 1.0202 1.0217 1.0232 1.0247 1.0262	8.42216 - 1 8.43473 8.44729 8.45984 8.47238 8.48491 8.49742 8.50993 8.52243	1.5235 - 2 1.5628 1.6030 1.6442 1.6863 1.7295 1.7736 1.8188 1.8651 1.9124	9.68975 + 1 9.93953 1.01953 + 2 1.04571 1.07251 1.09995 1.12803 1.15678 1.18620 1.21632	3.3445 - 6 3.3550 3.3558 3.3614 3.3670 3.3726 3.3782 3.3895 3.3895 3.3895	8.22262 - 1 8.23646 8.25029 8.26411 8.27792 8.29173 8.30554 8.31933 8.33312 8.34691
115000 115500 116000 116500 117000 117500 118000 118500 119500	114369 114864 115358 115853 116347 116842 117336 117830 118325 118819	1011.79 1012.69 1013.59 1014.49 1015.39 1016.29 1017.19 1018.08 1018.98 1019.87	1.0277 - 5 1.0292 1.0307 1.0322 1.0337 1.0352 1.0367 1.0382 1.0397	8.54739 - 1 8.55986 8.57231 8.58476 8.59719 8.60961 8.60203 8.63443 8.64682 8.65920	1.9609 - 2 2.0105 2.0612 2.1132 2.1663 2.2207 2.2764 2.3333 2.3915 2.4511	1.2471h + 2 1.27869 1.31097 1.34400 1.37780 1.41239 1.44778 1.48399 1.52104 1.55894	3.4007 - 6 3.4063 3.4119 3.4175 3.4281 3.4286 3.4342 3.4398 3.4510	8.36069 - 1 8.37446 8.38822 8.40198 8.41574 8.42948 8.44323 8.45696 8.47069 8.48441
12000 120500 121000 121500 122000 122500 123500 123500 124500	119313 119808 120302 120796 121290 121785 122279 122773 123267 123761	1020.77 1021.66 1022.55 1023.45 1024.34 1025.23 1026.12 1027.01 1027.89 1028.78	1.0427 - 5 1.0442 1.0456 1.0471 1.0486 1.0501 1.0516 1.0531 1.0545	8.67157 - 1 8.68394 8.69629 8.70863 8.72096 8.73328 8.74559 8.77589 8.77017	2.5121 - 2 2.5745 2.6383 2.7035 2.7703 2.8385 2.9084 2.9798 3.0528 3.1275	1.59772 + 2 1.63738 1.67796 1.71946 1.76191 1.80534 1.84975 1.89516 1.94161	3.4566 - 6 3.4621 3.4677 3.4733 3.4789 3.4844 3.4900 3.4956 3.5011	8.49813 - 1 8.51184 8.52254 8.53724 8.55293 8.56661 8.58029 8.59397 8.60763 8.60763
125000 125500 126000 126500 127000 127500 128000 128500 129000 129500	124255 124749 125243 125737 126231 126725 127219 127713 128207 128701	1029.67 1030.55 1031.44 1032.32 1033.20 1034.08 1034.97 1035.85 1036.73 1037.61	1.0575 - 5 1.0590 1.0604 1.0619 1.0648 1.0648 1.0663 1.0678	8.79472 - 1 8.80698 8.81923 8.83147 8.84370 8.85591 8.86812 8.88032 8.89251	3.2039 - 2 3.2820 3.3618 3.4435 3.5270 3.6123 3.6996 3.7888 3.8800 3.9732	2.03769 + 2 2.08736 2.13815 2.19008 2.24317 2.29746 2.35296 2.40970 2.46770 2.52699	3.5122 - 6 3.5178 3.5233 3.5289 3.5344 3.5400 3.5455 3.5510 3.5566 3.5621	8.63495 - 1 8.64859 8.66223 8.67587 8.68950 8.70312 8.71674 8.73035 8.74395 8.75755
130000 130500 131000 131500 132500 132500 133500 133500 134500	129195 129688 130182 130676 131170 131663 132157 132651 133144 133638	1038.48 1039.36 1040.24 1041.11 1041.99 1042.86 1043.74 1044.61 1045.48 1046.35	1.0722 - 5 1.0736 1.0751 1.0766 1.0780 1.0795 1.0809 1.0824 1.0838	8.91685 - 1 8.92901 8.94116 8.955330 8.96543 8.97755 8.98965 9.00175 9.01384 9.02592	4.0685 - 2 4.1659 4.2655 4.3672 4.47712 4.5775 4.6861 4.7971 4.9106 5.0265	2.58760 + 2 2.64955 2.71287 2.77759 2.84373 2.91133 2.98042 3.05102 3.12316 3.19688	3.5676 - 6 3.5731 3.5787 3.5842 3.5897 3.5952 3.6007 3.6062 3.6118 3.6173	8.77114 - 1 8.76473 8.76831 8.81188 8.82545 8.83901 8.85256 8.86611 8.87966 8.89319
135000 135500 136000 136500 137500 137500 138500 138500 139500	134132 134625 135119 135612 136106 136599 137093 137586 138080 138573	1047.22 1048.96 1048.96 1049.83 1050.70 1051.56 1052.43 1053.29 1054.16 1055.02	1.0867 - 5 1.0882 1.0896 1.0911 1.0925 1.0940 1.0954 1.0969	9.03799 - 1 9.05005 9.06210 9.07414 9.08617 9.09819 9.11020 9.12220 9.13419 9.14618	5.1449 - 2 5.2659 5.3896 5.5159 5.6450 5.7768 5.9115 6.0491 6.1897 6.3333	3.27221 + 2 3.34918 3.42782 3.50817 3.59025 3.67412 3.75979 3.84730 4.02802	3.6228 - 6 3.6283 3.63338 3.6393 3.6448 3.6502 3.6557 3.6667 3.6667	8.90672 - 1 8.92025 8.93376 8.94727 8.96078 8.97728 8.98777 9.00126 9.01474 9.02821
140000 140500 141000 141500 142000 142500 143000 143500 144000 144500	139066 139560 140053 140546 141040 141533 142026 142519 143012 143506	1055.88 1056.75 1057.61 1058.47 1059.33 1060.19 1061.05 1061.90 1062.76 1063.62	1.1012 - 5 1.1026 1.1041 1.1055 1.1069 1.1084 1.1098 1.1112 1.1127	9.15815 - 1 9.17011 9.18206 9.19401 9.20594 9.21786 9.22978 9.22168 9.25358 9.26547	6.4799 - 2 6.6297 6.7827 6.9390 7.0985 7.2615 7.4279 7.5979 7.7714 7.9486	4.12129 + 2 4.21656 4.31386 4.41324 4.51474 4.61839 4.72423 4.83232 4.94270 5.05540	3.6777 - 6 3.6831 3.6886 3.6941 3.6995 3.7050 3.7105 3.7159 3.7214 3.7268	9.04168 - 1 9.05514 9.06800 9.08205 9.09549 9.10893 9.12236 9.13579 9.14920 9.16262
145000 145500 146000 146500 147500 147500 148500 148000 149000 149500	143999 14492 144985 145471 145471 146464 146957 147450 147943	1064-47 1065-33 1066-18 1067-03 1067-89 1068-74 1069-59 1070-44 1071-29 1072-14	1.1155 - 5 1.1169 1.1184 1.1198 1.1212 1.1226 1.1241 1.1255 1.1269 1.1283	9.27734 - 1 9.28921 9.30107 9.31292 9.32475 9.33658 9.38841 9.36022 9.37202 9.38381	8.1296 - 2 8.3143 8.5029 8.6955 8.8921 9.0928 9.2977 9.5069 9.7204 9.9383	5.17048 + 2 5.28797 5.40794 5.53041 5.65545 5.78310 5.91342 6.04644 6.18223 6.32084	3.7323 - 6 3.7378 3.7432 3.7486 3.7541 3.7595 3.7650 3.7704 3.7758 3.7813	9.17602 - 1 9.18942 9.20282 9.21621 9.22959 9.24296 9.25633 9.26970 9.28305 9.29640

TABLE ▼I.—Continued

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

		Sound	T		I	ISH UNITS		
Alti	tude	speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	conductivity
H, ft	Z, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k , BTU ft ^{-l} sec ^{-l} (°R) ^{-l}	k k _O
150000 150500 151500 151500 152500 153500 153500 154000 154500	151087 151594 152101 152609 153116 153623 154131 154638 155146 155653	1074.83 1075.69 1076.54 1077.40 1078.26 1079.11 1079.97 1080.82 1081.68 1082.02	1.1328 - 5 1.1342 1.1357 1.1357 1.1385 1.1400 1.1414 1.1428 1.1443	9.42117 - 1 9.43310 9.44501 9.44502 9.46882 9.48071 9.49259 9.50446 9.51632 9.52105	1.0660 - 1 1.0901 1.1147 1.1398 1.1654 1.1916 1.2183 1.2455 1.2734	6.78001 + 2 6.93318 7.08957 7.24921 7.41219 7.57856 7.74839 7.92174 8.09868 8.26531	3.7985 - 6 3.8040 3.8095 3.8150 3.8260 3.8314 3.8369 3.8424 3.8424	9.33874 - 1 9.35226 9.36577 9.37928 9.39278 9.40628 9.41977 9.43325 9.44673 9.45211
155000 155500 156000 156500 157500 157500 158000 158500 159500	156161 156668 157176 157683 158191 158699 159206 159714 160222 160729	1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02	1.1448 - 5 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448	9.52105 9.52105 9.52105 9.52105 9.52105 9.52105	1.3248 - 1 1.3505 1.3768 1.4035 1.4308 1.4586 1.45869 1.5158 1.5158	8.42584 + 2 8.58950 8.75634 8.72641 9.09979 9.27654 9.45672 9.64040 9.82764 1.00185 + 3	3.8446 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446	9.45211 - 1 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211
160000 160500 161000 161500 162500 162500 163000 163500 164000	161237 161745 162253 162761 163268 163776 164284 164792 165300 165808	1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02	1.1448 - 5 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448	9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105	1.6058 - 1 1.6370 1.6688 1.7012 1.7343 1.7679 1.8023 1.8373 1.8730	1.02131 + 3 1.04115 1.06137 1.08199 1.10300 1.12443 1.14627 1.16853 1.19123	3.84%6 - 6 3.84%6 3.84%6 3.84%6 3.88%6 3.88%6 3.88%6 3.88%6 3.88%6	9-45211 9-45211 9-45211 9-45211 9-45211 9-45211 9-45211 9-45211
165000 165500 166500 166500 167500 167500 168500 169000 169500	166316 166824 167332 167840 168348 168356 169364 169873 170381 170889	1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02	1.1448 - 5 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448	9.52105 - 1 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105	1.9464 - 1 1.9842 2.0228 2.0621 2.1021 2.1430 2.1846 2.2270 2.2703 2.3144	1.23795 + 3 1.26200 1.28651 1.31150 1.33697 1.36294 1.38941 1.41640 1.44391 1.47195	3.8446 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446	9.45211 - 1 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211
170000 170500 171000 171500 171500 172500 173500 173500 174000 174500	171397 171906 172414 172922 173431 173939 174447 174956 175464 175973	1082.02 1082.02 1081.53 1080.92 1080.31 1079.70 1079.09 1078.48 1077.87	1.1448 - 5 1.1448 1.1440 1.1430 1.1420 1.1410 1.1399 1.1389 1.1379	9.52105 - 1 9.52105 - 1 9.51434 9.50587 9.49739 9.48891 9.48042 9.47193 9.46343 9.45493	2.3593 - 1 2.4480 2.4905 2.5339 2.5781 2.6231 2.6689 2.7156 2.7632	1.5005% + 3 1.52969 1.555692 1.58400 1.61159 1.63969 1.66831 1.69746 1.72715	3.84%6 - 6 3.84%6 3.8415 3.8376 3.8337 3.8297 3.8258 3.8219 3.8180 3.81%1	9.45211 - 1 9.45211 9.4448 9.43485 9.4252 9.41559 9.40595 9.39631 9.38667 9.37702
175000 175500 176000 176500 177000 177500 178000 178500 179000 179500	176481 176990 177498 178007 178515 179024 179533 180041 180550 181059	1076.65 1076.03 1075.42 1074.81 1074.19 1073.58 1072.97 1072.35 1071.74	1.1358 - 5 1.1348 1.1338 1.1328 1.1317 1.1307 1.1297 1.1287 1.1286	9.44643 - 1 9.43792 9.42940 9.42088 9.41236 9.40383 9.39530 9.38530 9.37822 9.36967	2.8116 - 1 2.8610 2.9113 2.9625 3.0147 3.0678 3.1220 3.1771 3.2334 3.2906	1.78822 + 3 1.81961 1.85158 1.88416 1.91734 1.95115 1.98560 2.02069 2.025644 2.09287	3.8101 - 6 3.8062 3.8023 3.7983 3.7984 3.7905 3.7866 3.7826 3.7787 3.7748	9.36737 - 1 9.35772 9.34806 9.33841 9.32875 9.31908 9.30942 9.29975 9.29008 9.28040
180000 180500 181000 181500 182500 182500 183500 184000 184500	181567 182076 182585 183094 183602 184111 184620 185129 185638 186147	1070-51 1069-89 1069-27 1068-66 1068-04 1067-42 1066-80 1066-19 1065-57	1.1256 - 5 1.1246 1.1235 1.1225 1.1215 1.1204 1.1194 1.1184 1.1173	9.36112 - 1 9.35257 9.34401 9.33544 9.32687 9.31830 9.30972 9.30114 9.29255 9.28396	3.3490 - 1 3.4084 3.4690 3.5308 3.5937 3.6578 3.7231 3.7296 3.8575	2.12998 + 3 2.16780 2.20633 2.24560 2.28560 2.32637 2.36791 2.41024 2.45338 2.49734	3.7708 - 6 3.7669 3.7629 3.7550 3.7551 3.7511 3.7472 3.7432 3.7433 3.7353	9.27072 - 1 9.26104 9.25136 9.24167 9.23198 9.22229 9.21260 9.20290 9.19320 9.18349
185000 185500 186000 186500 187000 187500 188000 189500 189500	186656 187165 187674 188183 188692 189201 189710 190220 190729 191238	1064.33 1063.71 1063.09 1062.47 1061.85 1061.23 1060.61 1059.98 1059.36	1.1153 - 5 1.1142 1.1132 1.1122 1.1111 1.1101 1.1091 1.1080 1.1070 1.1059	9.27536 - 1 9.26676 9.25815 9.24954 9.24093 9.23231 9.22368 9.21505 9.20642 9.19778	3.9970 - 1 4.0688 4.1420 4.2165 4.2925 4.3700 4.4489 4.5294 4.6114 4.6950	2.58214 + 3 2.58780 2.63433 2.68175 2.73009 2.77935 2.82956 2.82956 2.88073 2.93289 2.98606	3.731% - 6 3.7274 3.7235 3.7195 3.7196 3.7116 3.7077 3.7037 3.6998 3.6958	9.17379 - 1 9.16408 9.15436 9.11465 9.13493 9.12521 9.11549 9.10576 9.09603 9.08630

		Cauad		RIC ALTITO				
Alti	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	conductivity
Z, ft	H, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k , BTU ft ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
150000 150500 151000 151500 152000 152500 153000 153500 154000 154500	148929 149422 149914 150407 151393 151886 152378 152371 153364	1072.99 1073.83 1074.68 1075.53 1076.37 1077.22 1078.06 1078.91 1079.75 1080.59	1.1297 - 5 1.1311 1.1326 1.1340 1.1354 1.1368 1.1362 1.1396 1.1410 1.1424	9.39559 - 1 9.40737 9.41913 9.43089 9.44263 9.45437 9.46610 9.47782 9.48953 9.50123	1.0161 - 1 1.0388 1.0620 1.0856 1.1097 1.1344 1.1595 1.1852 1.2113	6.46232 + 2 6.60672 6.75411 6.90453 7.05805 7.21471 7.37460 7.53775 7.70424 7.87413	3.7867 - 6 3.7921 3.7975 3.8030 3.8084 3.8138 3.8192 3.8246 3.8300 3.8354	9.30975 - 1 9.32309 9.33642 9.34975 9.36307 9.37638 9.38969 9.40299 9.41629 9.42958
155000 155500 156000 156500 157000 157500 158500 158500 159500	153856 154349 154842 155334 155827 156319 156812 157304 157797 158289	1081.43 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02	1.1438 - 5 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448	9.51292 - 1 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105	1.2653 - 1 1.2920 1.3168 1.3419 1.3676 1.3938 1.4204 1.4476 1.4753	8.04748 + 2 8.21743 8.37465 8.53488 8.69817 9.03415 9.20696 9.38307 9.56255	3.8408 - 6 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446	9.44286 - 1 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211
160000 160500 161000 161500 162500 163500 163500 164000 164500	158782 159274 159766 160259 160751 161243 161736 162228 162720 163212	1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02	1.1448 - 5 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448	9.52105 - 1 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105	1.5323 - 1 1.5616 1.5915 1.6219 1.6529 1.6585 1.7167 1.7495 1.7830 1.8171	9.74544 + 2 9.93182 1.01218 + 3 1.03153 1.05126 1.07136 1.09184 1.1272 1.13399 1.15567	3.8446 - 6 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446	9.45211 - 1 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211
165000 165500 166000 166500 167500 168000 168500 169500	163705 164197 164689 165181 165673 166165 166657 167149 167641 168133	1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02 1082.02	1.1448 - 5 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448 1.1448	9.52105 - 1 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105 9.52105	1.8518 - 1 1.8872 1.9233 1.9600 1.9975 2.0357 2.0357 2.0746 2.1142 2.1546 2.1958	1.17777 + 3 1.20028 1.22322 1.24661 1.27043 1.29471 1.31946 1.34467 1.37037	3.8446 - 6 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446 3.8446	9.45211 - 1 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211 9.45211
170000 170500 171000 171500 172500 172500 173000 173000 174000 174500	168625 169117 169609 170101 170593 171085 171577 172068 172560 173052	1082.02 1082.02 1082.02 1082.02 1082.02 1081.43 1080.83 1080.83 1079.63	1.1448 - 5 1.1448 1.1448 1.1448 1.1448 1.148 1.1428 1.1418 1.1418	9.52105 ~ 1 9.52105 9.52105 9.52105 9.52105 9.51290 9.50457 9.49623 9.48789	2.2378 - 1 2.2805 2.3241 2.3685 2.4137 2.4551 2.4971 2.5399 2.5399 2.5395 2.6278	1.42324 + 3 1.45043 1.47815 1.50639 1.53516 1.56147 1.58819 1.61540 1.64310 1.67130	3.84%6 - 6 3.84%6 3.84%6 3.88%6 3.88%6 3.88%0 3.8370 3.8331 3.8223 3.8254	9.45211 - 1 9.45211 9.45211 9.45211 9.45211 9.45211 9.43338 9.42390 9.41443 9.40495
175000 175500 176000 176500 177500 177500 178500 178000 179500	173544 174035 174527 175019 175510 176002 176493 176985 177477 177968	1078.43 1077.83 1077.23 1076.62 1076.02 1075.42 1075.42 1074.82 1074.21 1073.61 1073.01	1.1388 - 5 1.1378 1.1368 1.1358 1.1358 1.1338 1.1328 1.1318 1.1318	9.47119 - 1 9.46283 9.45447 9.44611 9.43774 9.42937 9.42099 9.41262 9.40423 9.39584	2.6730 - 1 2.7789 2.7658 2.8134 2.8620 2.8114 2.9618 3.0131 3.0053 3.1185	1.70003 + 3 1.72927 1.75905 1.78937 1.82025 1.85170 1.88372 1.91634 1.94955 1.98338	3.8216 - 6 3.8177 3.8138 3.8100 3.8061 3.8023 3.7984 3.7945 3.7997 3.7868	9.395%7 - 1 9.38599 9.37650 9.36701 9.35752 9.34803 9.33853 9.3290% 9.3195%
180000 180500 181000 181500 182500 182500 183500 184000 184500	178460 176951 179442 179934 180425 180917 181408 181899 182391	1072.40 1071.80 1071.19 1070.59 1069.98 1069.38 1068.77 1068.16 1067.56 1066.95	1.1288 - 5 1.1277 1.1267 1.1257 1.1247 1.1237 1.1227 1.1217 1.1207 1.1197	9.38745 - 1 9.37906 9.37066 9.36225 9.35385 9.34544 9.33702 9.32860 9.32018 9.31175	3.1726 - 1 3.2278 3.2840 3.3412 3.3995 3.4588 3.5193 3.5809 3.6436 3.7075	2.01782 + 3 2.05291 2.08864 2.12503 2.16210 2.19986 2.23831 2.27748 2.31738 2.35802	3.7829 - 6 3.7791 3.7752 3.7713 3.7675 3.7636 3.7559 3.7559 3.7559 3.7520	9.30053 - 1 9.29102 9.28151 9.27200 9.26249 9.25297 9.24346 9.23393 9.22441 9.21489
185000 185500 186000 186500 187500 187500 188500 188500 189500	183373 183864 184356 184847 185339 185829 186320 186811 187302 187793	1066.34 1065.74 1065.13 1064.52 1063.91 1063.30 1062.69 1062.08 1061.47 1060.86	1.1186 - 5 1.1176 1.1176 1.1156 1.1136 1.1135 1.1125 1.1105 1.1095	9.30332 - 1 9.29488 9.28664 9.27800 9.26955 9.26110 9.25264 9.24418 9.23571 9.22724	3.7726 - 1 3.8389 3.9065 3.9753 4.0454 4.1168 4.1896 4.2637 4.3392 4.4161	2.39943 + 3 2.48160 2.48856 2.52832 2.57290 2.61832 2.66459 2.71173 2.75976 2.80869	3.7442 - 6 3.7305 3.7305 3.7326 3.7227 3.7248 3.7210 3.7171 3.7132 3.7093	9.20536 - 1 9.19583 9.18630 9.17676 9.16722 9.15768 9.74814 9.13860 9.12905 9.11950

TABLE VI.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altitude	1 -	ound peed	Coefficient	of viscosity	Kinematic	viscosity	Thermal c	onductivity
H, ft Z,		C _s ,	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k, BTU ft ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
190500 193 191000 193 191500 19 192500 193 192500 193 193500 193 194000 193	2256 105 2766 105 3275 105 3784 105 4294 105 4803 105 5312 105 5822 105	58.12 57.49 56.87 56.25 55.62 55.62 55.00 54.37 53.75 53.12 52.50	1.1049 - 5 1.1039 1.1028 1.1018 1.1007 1.0997 1.0987 1.0976 1.0955	9.18913 - 1 9.18048 9.17183 9.16317 9.15451 9.14584 9.13717 9.12849 9.11981 9.11112	4.7802 - 1 4.8671 4.9556 5.0459 5.1379 5.2317 5.3273 5.4248 5.5242 5.6255	3.04026 + 3 3.05181 3.20922 3.26774 3.32740 3.38821 3.45022 3.51343 3.57787	3.6918 - 6 3.6879 3.6839 3.6800 3.6720 3.6720 3.6681 3.6641 3.6601 3.6562	9.07656 - 1 9.06682 9.05708 9.04734 9.03759 9.02784 9.01809 9.00833 8.99857 8.98881
195500 19 196000 19 196500 19 197500 19 197500 19 198000 19 198500 20 199000 20	7350 105 7860 105 8369 104 8879 104 9388 104 9898 104 0408 104 0417 104	51.87 51.24 50.61 49.99 49.36 48.73 48.10 47.47 46.84	1.0945 - 5 1.0934 1.0924 1.0913 1.0993 1.0892 1.0882 1.0872 1.0861 1.0851	9.10243 - 1 9.09374 9.08504 9.07633 9.06762 9.05890 9.05018 9.04146 9.03273 9.02399	5.7288 - 1 5.8342 5.9416 6.0511 6.1627 6.2766 6.3927 6.5110 6.6318 6.7549	3.64358 + 3 3.71057 3.77888 3.84852 3.91954 3.99195 4.06578 4.14107 4.21785 4.29614	3.6522 - 6 3.6482 3.6442 3.6403 3.6363 3.6323 3.6283 3.6283 3.62243 3.6204 3.6164	8.97904 - 1 8.96928 8.95951 8.95973 8.93996 8.93018 8.92040 8.91061 8.90082 8.89103
200500 200 201000 200 201500 20 202000 20 202500 200 203500 200 203500 200 204000 200	2447 101 2956 104 3466 104 3976 104 4486 103 4996 103 5506 103	45.58 44.22 41.96 40.69 39.42 38.16 36.88 35.61 34.34	1.0840 - 5 1.0822 1.0801 1.0780 1.0759 1.0737 1.0716 1.0695 1.0674 1.0653	9.01525 - 1 9.00006 8.98255 8.96502 8.94747 8.92790 8.91231 8.89470 8.87708 8.85943	6.880% - 1 6.9972 7.1122 7.229% 7.3%88 7.470% 7.59%3 7.7207 7.8%94 7.9805	4.37599 + 3 4.45028 4.52342 4.59794 4.67387 4.75124 4.83007 4.91040 4.99227 5.07570	3.6124 - 6 3.6055 3.5075 3.5895 3.5815 3.5735 3.5536 3.5576 3.5576 3.5496 3.5415	8.88124 - 1 8.86421 8.84461 8.82499 8.80536 8.76572 8.76607 8.74640 8.72673 8.70704
205500 20 206000 20 206500 20 207000 20 207500 20 208000 21 208500 21 209000 21	7545 103 8055 103 8565 102 9075 102 9586 102 0096 102 0606 102	33.06 31.79 30.51 29.23 27.95 26.66 25.38 24.09 22.80 21.51	1.0631 - 5 1.0610 1.0589 1.0568 1.0546 1.0545 1.0503 1.0482 1.0461	8.84176 - 1 8.82407 8.80637 8.78864 8.77089 8.75312 8.73534 8.71753 8.69970	8.1142 - 1 8.2505 8.3894 8.5309 8.6752 8.8223 8.9723 9.1252 9.2811	5.16073 + 3 5.24739 5.33572 5.42575 5.51753 5.61109 5.70646 5.80370 5.90283 6.00391	3.5335 - 6 3.5255 3.5175 3.5095 3.5094 3.4034 3.4034 3.4773 3.4003 3.4603	8.6873% - 1 8.667763 8.64771 8.62817 8.608%3 8.58867 8.56890 8.54912 8.52933 8.50953
210500 211 211000 21 211500 21 212000 211 212500 211 213500 211 213500 211 214000 216	2647 101 3157 101 3667 101 4177 101 4688 101 5198 101 5709 101 6219 100	20.22 18.93 17.63 16.34 15.04 13.74 12.44 11.13 09.83 08.52	1.0418 - 5 1.0376 1.0375 1.0353 1.0331 1.0310 1.0268 1.0267 1.0245	8.66399 - 1 8.64610 8.62819 8.61026 8.59231 8.57434 8.55635 8.53833 8.52030 8.50225	9.6020 - 1 9.7673 9.9358 1.0108 + 0 1.0283 1.0462 1.0644 1.0830 1.1019	6.10697 + 3 6.21206 6.31922 6.32851 6.53996 6.65363 6.76956 6.88781 7.00843 7.13147	3.4531 - 6 3.4451 3.4370 3.4289 3.4289 3.4128 3.4047 3.3966 3.3885 3.3885	8.48971 - 1 8.46989 8.45005 8.43020 6.41034 8.39046 8.37058 8.35068 8.35077 8.31085
215500 21 216000 21 216500 21 217000 21 217500 21 218000 22 218500 22 219000 22	7750 100 8261 100 8771 100 9282 100 9793 100 9303 99 9814 99 1324 99	07.21 05.90 04.59 03.28 01.96 00.65 99.33 98.01 96.69 95.36	1.0201 - 5 1.0180 1.0158 1.0136 1.0114 1.0092 1.0071 1.0049 1.0027	8.48417 - 1 8.46608 8.44796 8.42982 8.41166 8.39348 8.37528 8.35706 6.33882 8.32055	1.1410 + 0 1.1612 1.817 1.2027 1.2240 1.2459 1.2681 1.2908 1.3140 1.3377	7.25698 + 3 7.38503 7.51568 7.64897 7.78498 7.92375 8.06537 8.20989 8.35738 8.50791	3.3723 - 6 3.3642 3.3561 3.3479 3.3398 3.3317 3.3235 3.3154 3.3073 3.2091	8.29092 - 1 8.27098 8.25103 8.23106 8.21108 8.19109 8.17109 8.15108 8.13106 8.11102
220500 22 221000 22 221500 22 222000 22 222500 22 223500 22 223500 22 223500 22	2857 99 3367 99 3878 99 4389 98 4900 98 5411 98 5921 98 6432 98	94.04 92.71 91.38 90.05 88.72 87.38 86.05 84.71 83.37 82.03	9.9827 - 6 9.9607 9.9387 9.9166 9.8945 9.8724 9.8502 9.8502 9.8281 9.8059 9.7836	8.30226 - 1 8.28396 8.26563 8.24727 8.22890 8.21051 8.19209 8.17365 8.15519 8.13671	1.3619 + 0 1.3865 1.4117 1.4374 1.4636 1.4904 1.5177 1.5456 1.5741 1.6033	8.66154 + 3 8.81836 8.97844 9.14185 9.30867 9.47899 9.65288 9.83042 1.00117 + 4 1.01968	3.2910 - 6 3.2828 3.2746 3.2665 3.2583 3.2501 3.2419 3.2338 3.2256 3.2174	8.09097 - 1 8.07092 8.05085 8.03076 8.01067 7.99057 7.97045 7.95032 7.93018 7.91003
225500 22 226500 22 227000 22 227500 23 227500 23 228500 23 228500 23 229000 23	7965 978476 9788987 979498 97009 970521 971032 971543 96	80.68 79.34 77.99 76.64 75.29 73.94 72.58 71.23 69.87 68.51	9.7614 - 6 9.7391 9.7168 9.6945 9.6721 9.6497 9.6273 9.6049 9.5824 9.5599	8.11821 - 1 8.09968 8.08113 8.06256 8.04397 8.02535 8.00672 7.98806 7.96937 7.95067	1.6330 + 0 1.6633 1.6943 1.7260 1.7584 1.77914 1.8252 1.8596 1.8949 1.9309	1.03859 + 4 1.05790 1.07762 1.09776 1.11833 1.13935 1.16082 1.18275 1.20516 1.22805	3.2092 - 6 3.2010 3.1927 3.1845 3.1763 3.1681 3.1599 3.1516 3.1834 3.1351	7.88987 - 1 7.86970 7.84951 7.82932 7.80911 7.78889 7.76866 7.74842 7.72816 7.70790

		Sound		of viscosity			Thormal	oodustivity
Altit	rude	speed	Coefficient	OI VISCOSITY	Kinematic	viscosity	Thermal c	—————
Z, ft	H, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η, ft² sec ⁻¹	$\frac{\eta}{\eta_0}$	k, BTUft ⁻ⁱ sec ⁻ⁱ (°R) ⁻ⁱ	k k _O
190000 190500 191000 191500 192500 192500 193500 193500 194500	188284 188775 189266 189757 190248 190739 191230 191721 192212 192703	1060.25 1059.64 1059.03 1058.42 1057.81 1057.20 1056.58 1055.36 1054.74	1.1085 - 5 1.1075 1.1064 1.1054 1.1044 1.1034 1.1023 1.1003 1.1003	9.21877 - 1 9.21029 9.20181 9.19333 9.18484 9.17634 9.16785 9.15935 9.15938	4.4945 - 1 4.5744 4.6557 4.7387 4.8231 4.9092 4.9969 5.0863 5.1774 5.2702	2.85855 + 3 2.90934 2.96109 3.01382 3.06755 3.12230 3.17809 3.23494 3.29286 3.35189	3.705% - 6 3.7015 3.6977 3.6938 3.6899 3.6860 3.6821 3.6782 3.67743	9.10995 - 1 9.10040 9.09084 9.08128 9.07172 9.06216 9.05260 9.04303 9.03346 9.02389
195000 195500 196000 196500 197500 197500 198500 198500 199500	193193 193684 194175 194666 195156 195647 196138 196628 197119 197609	1054-13 1053-52 1052-90 1052-29 1051-67 1051-06 1050-44 1049-83 1049-21 1048-59	1.0983 - 5 1.0972 1.0962 1.0952 1.0952 1.0931 1.0921 1.0911 1.0900	9.13381 - 1 9.12530 9.11677 9.10825 9.09971 9.09118 9.08264 9.07410 9.06555 9.05700	5.3648 - 1 5.4612 5.5594 5.6595 5.7615 5.9715 6.0795 6.1896 6.3018	3.41205 + 3 3.47335 3.53583 3.59949 3.66438 3.73051 3.79791 3.86660 3.93662 4.00798	3.6665 - 6 3.6626 3.6587 3.6548 3.6549 3.6470 3.6431 3.6392 3.6353 3.6314	9.01431 - 1 9.00474 8.99516 8.98558 8.97599 8.96640 8.95682 8.94723 8.93763 8.92804
200000 200500 201000 201500 202500 202500 203500 204000 204500	198100 198591 199081 199572 200062 200552 201043 201533 202024 202514	1047.98 1047.36 1046.74 1046.12 1045.50 1044.35 1043.12 1041.87 1040.63 1039.39	1.0880 - 5 1.0870 1.0859 1.0849 1.0839 1.0820 1.0779 1.0778 1.0758	9.04844 - 1 9.03988 9.03131 9.02274 9.01417 8.99822 8.98105 8.96385 8.94664 8.92941	6.4161 - 1 6.5327 6.6515 6.7727 6.8961 7.0092 7.1222 7.2372 7.3544 7.4738	4.08072 + 3 4.15486 4.23043 4.30747 4.38599 4.45789 4.52975 4.60295 4.67749 4.75341	3.6275 - 6 3.6236 3.6197 3.6158 3.6119 3.6016 3.5968 3.5968 3.5890 3.5812 3.5733	8.91844 - 1 8.70884 8.89924 8.88963 8.88002 8.86216 8.84293 8.82369 8.80443 8.78517
205000 205500 206000 206500 207500 207500 208500 208500 209000 209500	203004 203495 203985 204475 204965 205456 205946 206436 206926 207416	1038.14 1036.90 1035.65 1034.40 1033.15 1031.90 1030.65 1029.39 1028.14 1026.88	1.0716 - 5 1.0695 1.0675 1.0654 1.0633 1.0612 1.0591 1.0559 1.0549	8.91216 - 1 8.89489 8.87761 8.86031 8.84299 8.82565 8.80829 8.77091 8.77352	7.595% - 1 7.7193 7.8454 7.9740 8.1049 8.2383 8.3742 8.5126 8.6537 8.7975	4.83075 + 3 4.90952 4.98976 5.07150 5.15478 5.23961 5.32604 5.41411 5.50384 5.59527	3.5655 - 6 3.5576 3.5498 3.5419 3.5341 3.5262 3.5184 3.5105 3.5026 3.4947	8.76590 - 1 8.74662 8.72732 8.70802 8.68871 8.66938 8.65005 8.63071 8.61135 8.59199
21000C 210500 211000 211500 212000 212500 213500 213500 214000 214500	207906 208396 208886 209376 209866 210356 210846 211336 211826 212316	1025.62 1024.36 1023.09 1021.83 1020.57 1019.30 1018.03 1016.76 1015.49 1014.22	1.0507 - 5 1.0486 1.0465 1.0444 1.0423 1.0402 1.0381 1.0350 1.0339	8.73868 - 1 8.72123 8.70376 8.68627 8.66876 8.65124 8.63370 8.61613 8.59855 8.58095	8.9440 - 1 9.0932 9.2454 9.4004 9.5584 9.7194 9.7194 9.8836 1.0051 + 0 1.0221 1.0395	5.68843 + 3 5.78337 5.88012 5.97873 6.07922 6.18165 6.28605 6.39247 6.50095 6.61153	3.4869 - 6 3.4790 3.4711 3.4632 3.4553 3.4474 3.4395 3.4316 3.4237 3.4158	8.57261 - 1 8.55323 8.53383 8.51443 8.49501 8.47558 8.45615 8.43670 8.41724 8.39778
215000 215500 216000 216500 217000 217500 218500 218500 219000 219500	212806 213296 213785 214275 214765 215765 215745 216234 216724 217214	1012.94 1011.67 1010.39 1009.11 1007.83 1006.55 1005.26 1003.98 1002.69 1001.40	1.0297 - 5 1.0275 1.0254 1.0233 1.0212 1.0190 1.0169 1.0148 1.0126	8.56333 - 1 8.54570 8.52804 8.51036 8.49267 8.47295 8.45722 8.43947 8.42169 8.40390	1.0573 + 0 1.0753 1.0938 1.1125 1.1317 1.1512 1.1711 1.1915 1.2122	6.72427 + 3 6.83920 6.95638 7.07586 7.19760 7.32191 7.44859 7.57778 7.70953 7.84390	3.4078 - 6 3.3999 3.3920 3.3840 3.3761 3.3682 3.3682 3.3523 3.3543 3.3363	8.37830 - 1 8.35881 8.35932 8.31981 8.30029 8.28076 8.26122 8.24167 8.22212 8.22212
220000 220500 221000 221500 222000 222500 223500 223500 224000 224500	217703 218193 218682 219172 219661 220151 220640 221130 221619 222109	1000.11 998.82 997.53 996.23 994.94 993.64 992.34 991.04 989.73	1.0084 - 5 1.0062 1.0041 1.0019 9.9976 - 6 9.9761 9.9545 9.9329 9.9113 9.8897	8.38609 - 1 8.36826 8.350%1 8.3325% 8.31%65 8.29674 8.27881 8.26086 8.24289 8.22490	1.2548 + 0 1.2768 1.2992 1.3221 1.3454 1.34692 1.3935 1.4183 1.4436	7.98095 + 3 8.12073 8.26332 8.40878 8.55716 8.70854 8.86299 9.02056 9.18135 9.34541	3.3284 - 6 3.3204 3.3124 3.3045 3.2965 3.2885 3.2805 3.2725 3.2725 3.2645 3.2565	8.18297 - 1 8.16338 8.14378 8.12417 8.10455 8.08492 8.06528 8.04563 8.02597 8.00630
225000 225500 226000 226500 227500 227500 228500 228500 229500	222598 223087 223577 224066 224555 225045 225534 226023 226512 227002	987.12 985.81 984.50 983.19 981.88 980.56 979.25 977.93 976.61 975.29	9.8680 - 6 9.847 9.8247 9.8029 9.7812 9.7594 9.7376 9.7158 9.6939 9.6721	8.20689 - 1 8.18887 8.17082 8.15275 8.13466 8.11655 8.09842 8.08027 8.06210 8.04391	1.4957 + 0 1.5226 1.5500 1.5780 1.6065 1.6357 1.6654 1.6958 1.7268	9.51283 + 3 9.68368 9.85804 1.00360 + 4 1.02176 1.04030 1.05923 1.07854 1.09827 1.11840	3.2485 - 6 3.2405 3.2325 3.2245 3.2165 3.2084 3.2004 3.1924 3.1843 3.1763	7.98662 - 1 7.96693 7.94723 7.92752 7.90780 7.88807 7.86833 7.84858 7.82881 7.80904

TABLE VI.—Continued
GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

C _s , ft sec ⁻¹	μ,	11				
		$\frac{\mu}{\mu_0}$	η , ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k, BTU fi ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
967.15 965.78 964.42 963.05 961.68 960.31 958.93 957.56 956.18	9.537% - 6 9.51%9 9.%923 9.%697 9.%471 9.%2% 9.%017 9.33563 9.3335	7.9319% - 1 7.91319 7.89442 7.87562 7.85680 7.83796 7.81910 7.80021 7.78130 7.76237	1.9677 + 0 2.0052 2.0437 2.0829 2.1230 2.1640 2.2488 2.2926 2.3374	1.25145 + 4 1.27535 1.29978 1.32475 1.35026 1.37634 1.40300 1.43025 1.45811 1.48659	3.1269 - 6 3.1166 3.1104 3.1021 3.0039 3.0856 3.0773 3.0690 3.0608 3.0525	7.68762 - 1 7.66733 7.64704 7.62673 7.60640 7.58607 7.56573 7.54537 7.52500 7.50462
953. %2 952.03 950.65 9%9.26 9%7.87 9%6.48 9%5.08 9%3.69 9%2.29 9%0.89	9.3107 - 6 9.2879 9.2651 9.2422 9.2193 9.1963 9.1734 9.1504 9.1274 9.1043	7.74341 - 1 7.72443 7.70543 7.68640 7.66735 7.64828 7.62918 7.61006 7.59091 7.57174	2.3832 + 0 2.4300 2.4778 2.5268 2.5769 2.6281 2.6804 2.7340 2.7888 2.8448	1.51571 + 4 1.54549 1.57593 1.60707 1.63891 1.67147 1.70477 1.73884 1.77369 1.80934	3.0442 - 6 3.0359 3.0276 3.0193 3.0110 3.0026 2.9943 2.9860 2.9777 2.9693	7.48423 - 1 7.46383 7.44382 7.42300 7.40256 7.38212 7.36166 7.34119 7.32071 7.30022
939.48 938.08 936.67 935.27 933.85 932.44 931.03 929.61 928.19 926.77	9.0812 - 6 9.0581 9.0350 9.0118 8.9887 8.9054 6.9422 8.87189 8.88756	7.55255 - 1 7.53334 7.51410 7.49483 7.47554 7.45623 7.43689 7.41753 7.39815 7.37874	2.9022 + 0 2.9609 3.0229 3.0823 3.1452 3.2095 3.2754 3.3428 3.4118 3.4824	1.84581 + 4 1.88313 1.92131 1.96038 2.00037 2.04129 2.08317 2.12603 2.16991 2.21483	2.9610 - 6 2.9526 2.9443 2.9359 2.9276 2.9192 2.9109 2.9025 2.8841 2.8857	7.27972 - 1 7.25921 7.23868 7.21815 7.19760 7.17704 7.15647 7.13590 7.11531 7.09470
925.34 923.92 922.5 921.1 919.6 918.2 916.8 915.3 913.9	8.8489 - 6 8.8255 8.802 8.779 8.755 8.755 8.732 8.708 8.664 8.661	7.35930 - 1 7.33984 7.3204 7.3009 7.2813 7.2618 7.2422 7.2226 7.2029 7.1833	3.5547 + 0 3.6287 3.705 3.782 3.862 3.862 4.026 4.112 4.119 4.289	2.26081 + 4 2.30789 2.3561 2.4055 2.4560 2.5078 2.5608 2.6151 2.6707 2.7277	2.8774 - 6 2.8690 2.861 2.852 2.884 2.835 2.827 2.819 2.810 2.802	7.07409 - 1 7.05347 7.0328 7.0122 6.9915 6.9709 6.9502 6.9295 6.9088 6.8881
911.0 909.5 908.1 906.6 905.2 903.7 902.3 900.8 899.3	8.614 - 6 8.590 8.566 8.552 8.519 8.457 8.447 8.447 8.423 8.359	7.1636 - 1 7.1439 7.1242 7.1044 7.0846 7.0648 7.0650 7.0251 7.0052 6.9853	4.381 + 0 4.475 4.571 4.670 4.771 4.875 4.981 5.090 5.202 5.316	2.7861 + 4 2.8459 2.9072 2.9701 3.0344 3.1004 3.1680 3.2373 3.3084 3.3812	2.793 - 6 2.785 2.776 2.7768 2.760 2.751 2.783 2.734 2.726 2.717	6.8674 - 1 6.8456 6.8259 6.8051 6.7844 6.7636 6.7428 6.7220 6.7012 6.6804
89%.9 893.4 892.0 890.5 889.0 887.5 886.0 884.5	8.375 - 6 8.351 8.327 8.303 8.279 8.255 8.231 8.207 8.182 8.173	6.9654 - 1 6.9454 6.9254 6.9054 6.8653 6.8653 6.8452 6.8251 6.8049 6.7974	5.434 + 0 5.554 5.678 5.804 5.934 6.067 6.204 6.344 6.488 6.662	3.4559 + h 3.5325 3.6110 3.6916 3.7742 3.8589 3.9458 4.0349 4.1264 4.2370	2.709 - 6 2.700 2.692 2.683 2.675 2.666 2.658 2.649 2.649 2.641 2.638	6.6596 - 1 6.6387 6.6179 6.5970 6.5762 6.5553 6.5388 6.5135 6.4926 6.4848
884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	6.857 + 0 7.057 7.264 7.476 7.476 7.919 8.151 8.389 8.635 8.887	4.3609 + 4 4.884 4.6197 4.7547 4.8938 5.0369 5.1841 5.3357 5.4917 5.6523	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6.4848 ~ 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	9.147 + 0 9.415 9.690 9.973 1.026 + 1 1.056 1.087 1.119 1.152 1.186	5.8176 + 4 5.9877 6.1628 6.3430 6.5285 6.7194 6.9158 7.1180 7.3262	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6. \$848 - 1 6. \$848 6. \$848 6. \$848 6. \$848 6. \$848 6. \$848 6. \$848 6. \$848
	96108-75-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8	961.68 960.31 961.68 97.87 960.31 97.56.89 97.87 97.56.89 97.3790 956.18 93563 953.82 9.3107 - 6 952.03 9.2879 9.2651 9.49.26 9.2822 9.47.87 9.1963 9.1963 9.1963 9.1963 9.1963 9.1963 9.1963 9.1963 9.1963 9.1963 9.1963 9.1083 9.1083 9.1083 9.1083 9.1083 9.1138 9.1083 9.1138 9	961.68 9.4871 7.85680 760.31 9.4871 7.85680 7.83796 750.31 9.4017 7.80021 7.80	961.68 9.4b71 7.85680 2.1230 90.031 9.4b24 7.83796 2.1640 90.31 9.4b24 7.83796 2.1640 95.56 18 9.36790 7.80021 2.2488 95.56.18 9.3563 7.76130 2.2926 95.80 9.3355 7.76237 2.3374 9.356.18 9.3355 7.76237 2.3374 9.356.18 9.3355 7.76237 2.3374 9.356.5 9.2651 7.76130 2.2926 95.80 9.2651 7.70533 2.4370 9.269 9.2651 7.70533 2.4370 9.269 9.262 7.6640 2.5268 94.80 9.1033 7.64028 2.5268 94.80 9.1033 7.64028 2.5268 94.80 9.1033 7.64028 2.5268 94.80 9.1034 7.62918 2.6804 943.60 9.1504 7.62918 2.6804 943.60 9.1504 7.65006 2.7340 942.29 9.1274 7.59091 2.7808 940.89 9.1043 7.57174 2.8448 9.0812 9.0581 7.57174 2.8448 9.0584 7.43554 3.3023 9.30823 9.30827 7.45523 3.2023 9.3082 9.3082 7.445623 3.2029 9.33.85 9.3887 7.45523 3.3823 9.3823 9.3827 7.45523 3.3823 9.2817 9.28.19 8.8955 7.39815 3.3418 3.8223 9.29.61 8.9189 7.41753 3.3428 9.28.19 8.8955 7.39815 3.3418 3.8224 9.22.5 8.802 7.43569 3.3828 9.22.5 8.802 7.43569 3.3828 9.22.5 8.802 7.43569 3.3828 9.22.5 8.802 7.3204 3.705 9.112 9.10.8 8.705 7.2813 3.862 9.10.8 8.705 7.2813 3.862 9.10.8 8.705 7.2813 3.862 9.10.8 8.705 7.2813 3.862 9.10.8 8.705 7.2813 3.862 9.10.8 8.705 7.2813 3.862 9.10.8 8.705 7.2813 3.862 9.10.8 8.705 7.2029 4.199 9.10.8 8.705 7.2029 4.199 9.10.8 8.705 7.2029 4.199 9.10.8 8.705 7.2029 4.199 9.10.8 8.895 7.0052 8.590 7.0052 8.590 9.853 5.316 8.808 7.2022 8.590 9.833 8.828 7.0052 8.590 9.833 8.828 7.0052 8.590 9.835 9.005 8.990 8.351 9.006.8 8.497 9.005.2 8.590 9.005.8 8.995 9.205 8.8	961.68	961.68 9.4471 7.85796 2.1230 1.35026 3.0039 960.31 7.87136 2.1640 1.3763h 3.0856 950.31 9.4017 7.81910 2.2060 1.40300 3.0717 97.81910 2.2060 1.40300 3.0717 97.81910 2.2060 1.40300 3.0717 97.81910 2.2060 1.40300 3.0717 97.81910 97.819

TABLE ▼I — Concluded GEOMETRIC ALTITUDE, ENGLISH UNITS

Alti	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	conductivity
Z, ft	H, ft	C _s , ft sec ⁻	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k, BTU ft ^{-l} sec ^{-l} (^o R) ^{-l}	k k _O
230000 230500 231000 231500 232500 232500 233500 234500 234500	227491 227980 228469 228958 229447 229936 230425 230914 231892	973.96 972.64 971.31 969.98 968.65 967.32 965.99 964.65 963.31 961.97	9.6502 9.6282 9.6063 9.5843 9.5623 9.5403 9.5183 9.4962 9.4741 9.4520	8.02570 - 1 8.00747 7.98921 7.97094 7.95265 7.93433 7.91600 7.89764 7.87926 7.86086	1.7908 + 0 1.8238 1.8575 1.8919 1.9270 1.9629 1.9996 2.0370 2.0752 2.1143	1.13896 + 4 1.15994 1.18138 1.20326 1.22561 1.22563 1.27175 1.29555 1.31987 1.34471	3.1682 - 6 3.1602 3.1521 3.1441 3.1360 3.1280 3.1199 3.1118 3.1037 3.0956	7.78926 - 1 7.76947 7.74967 7.72986 7.71904 7.69021 7.67037 7.65052 7.63066 7.61079
235000 235500 236000 236000 237000 237500 238000 238500 239000 239500	232381 232870 233359 233848 234337 234825 235314 235803 236292 236780	960.63 959.29 957.94 956.60 955.25 953.90 952.55 951.19 949.84 948.48	9.4298 - 6 9.4076 9.3854 9.3632 9.3410 9.3187 9.2964 9.2741 9.2517 9.2293	7.84245 - 1 7.82401 7.80554 7.76856 7.76856 7.75003 7.73149 7.71292 7.69433 7.67572	2.15%2 + 0 2.1950 2.2366 2.2792 2.3226 2.3671 2.%125 2.%589 2.5063 2.55%7	1.37009 + 4 1.39602 1.42250 1.44957 1.47722 1.50547 1.53435 1.56385 1.56484	3.0876 - 6 3.0795 3.0714 3.0633 3.0552 3.0471 3.0390 3.0308 3.0227 3.0146	7.59091 - 1 7.57102 7.55111 7.53120 7.51128 7.49135 7.47142 7.45147 7.43151 7.41154
240000 240500 241000 241500 242000 242500 243500 243500 244000 244500	237269 237758 238246 238735 239224 239712 240201 240689 241178 241666	947.12 945.76 944.39 943.03 941.66 940.29 938.92 937.55 936.17 934.80	9.2069 - 6 9.1845 9.1621 9.1396 9.1171 9.0945 9.0720 9.0494 9.0268 9.0041	7.65709 - 1 7.63843 7.61976 7.60106 7.58234 7.56350 7.54484 7.52605 7.50725 7.48842	2.6043 + 0 2.6549 2.7067 2.7596 2.8137 2.8690 2.9256 2.9834 3.0426 3.1031	1.6563% + % 1.68855 1.721%7 1.75513 1.7895% 1.82%72 1.860770 1.897%9 1.93511 1.977359	3.0065 - 6 2.9983 2.9902 2.9821 2.9739 2.9658 2.9576 2.9475 2.9413 2.9332	7.39156 - 1 7.37157 7.35157 7.35156 7.33156 7.31155 7.29152 7.27148 7.25143 7.23138 7.21131
245000 245500 246000 246500 247000 247500 248000 249000 249500	242155 242643 243132 243620 244108 244597 245085 245573 246062 246550	933.42 932.04 930.7 929.3 927.9 926.5 925.1 923.7 922.3 920.9	8.9815 - 6 8.9588 8.936 8.913 8.891 8.868 8.845 8.822 8.799 8.776	7.46957 - 1 7.45069 7.4318 7.4129 7.3939 7.3750 7.3750 7.3370 7.3180 7.2989	3.1650 + 0 3.2282 3.293 3.359 3.427 3.496 3.567 3.6714 3.710	2-01294 + 4 2-05319 2-0944 2-1365 2-1796 2-2236 2-2688 2-3149 2-3621 2-4105	2.9250 - 6 2.9168 2.909 2.900 2.892 2.884 2.876 2.868 2.860 2.851	7.19124 - 1 7.17115 7.1511 7.1310 7.1108 7.0907 7.0706 7.0504 7.0303 7.0101
250000 250500 251000 251500 252000 252500 253000 253500 254000 254500	247038 247526 248015 248503 248991 249479 249967 250455 25043 251431	919.5 918-1 916-7 915.3 913.9 912.5 911.1 909-7 908.2 906.8	8.753 - 6 8.730 8.707 8.684 8.661 8.638 8.615 8.592 8.5969	7.2798 - 1 7.2607 7.2416 7.2225 7.2033 7.1841 7.1649 7.1457 7.1264 7.1071	3.868 + 0 3.947 %-029 %-112 %-198 %-285 %-375 %-466 %-560 %-656	2-4599 + 4 2-5106 2-5624 2-6154 2-6154 2-7253 2-7822 2-8405 2-9002 2-9613	2.843 - 6 2.835 2.827 2.818 2.810 2.802 2.794 2.786 2.777 2.769	6.9900 - 1 6.9698 6.9496 6.9294 6.9092 6.8890 6.8687 6.8485 6.8283 6.8080
255000 255500 256500 256500 257000 257500 258000 258500 259000 259500	251919 252407 252895 253383 253871 254359 254847 255335 255322 256310	905.4 904.0 902.6 901.1 899.7 898.3 896.8 895.4 894.0 892.5	8.522 - 6 8.499 8.476 8.453 8.429 8.406 8.383 8.359 8.336 8.312	7.0878 - 1 7.0685 7.0491 7.0298 7.0104 6.9909 6.9715 6.97520 6.9325 6.9130	4.755 + 0 4.855 4.959 5.064 5.173 5.284 5.397 5.514 5.633 5.756	3.0239 + 4 3.0880 3.1537 3.2210 3.2899 3.3605 3.4328 3.5070 3.5829 3.6608	2.761 - 6 2.753 2.7%4 2.736 2.728 2.720 2.711 2.703 2.695 2.687	6.7877 - 1 6.7675 6.7472 6.7269 6.7066 6.6863 6.6660 6.6456 6.6253 6.6049
260000 260500 261000 261500 262000 262500 263000 263500 264000 264500	256798 257286 257774 258261 258749 259237 259724 260212 260699 261187	891.1 889.6 888.2 886.7 885.3 884.0 884.0 884.0	8.289 - 6 8.265 8.242 8.218 8.194 8.173 8.173 8.173 8.173 8.173	6.8935 - 1 6.8739 6.8543 6.8347 6.8151 6.7974 6.7974 6.7974 6.7974	5.881 + 0 6.010 6.142 6.277 6.415 6.561 6.749 6.941 7.139 7.342	3.7406 + 4 3.8223 3.9062 3.9921 0.0802 4.1732 4.2921 4.14145 4.5403 4.6697	2.678 - 6 2.670 2.662 2.653 2.645 2.638 2.638 2.638 2.638 2.638	6.5846 - 1 6.5642 6.5439 6.5235 6.5031 6.4848 6.4848 6.4848 6.4848
265000 265500 266000 266500 267500 267500 268500 268500 269000 269500	261675 262162 262650 263137 263624 264112 264599 265087 265574 266061	884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	7.551 + 0 7.767 7.988 8.216 8.450 8.691 8.938 9.193 9.455 9.724	4.8028 + 4 4.9397 5.0805 5.2252 5.3741 5.5273 5.6848 5.8467 6.0133 6.1846	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
269000	265574	884.0						

TABLE ▼I.—Concluded

GEOPOTENTIAL ALTITUDE, ENGLISH UNITS

Altit	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal a	onductivity
H, ft	Z, ft	C _s , ft sec ⁻¹	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η, ft² sec⁻¹	$\frac{\eta}{\eta_0}$	k, BTU f1 ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
270000 270500 271000 271500 272500 272500 273000 273500 274000 274500	273542 274055 274568 275082 275595 276108 276622 277135 277648 278162	884.0 884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	1.220 + 1 1.256 1.293 1.330 1.369 1.409 1.451 1.493 1.537 1.582	7.7609 + 4 7.9878 8.2214 8.4618 8.7092 8.9638 9.2260 9.4957 9.7734 1.0059 + 5	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
275000 275500 276000 276500 277500 277500 278500 278500 279500	278675 279189 279702 280216 280729 281243 281756 282270 282784 283297	884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	1.628 + 1 1.675 1.724 1.775 1.827 1.880 1.935 1.992 2.050 2.110	1.0353 + 5 1.0656 1.0968 1.1288 1.1618 1.1958 1.2568 1.2668 1.3038	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
280000 280500 281000 281500 282000 282500 283500 284000 284500	283811 284325 284838 285352 285866 2868894 287408 287921 288435	884.0 884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	2.172 + 1 2.235 2.300 2.368 2.437 2.508 2.582 2.657 2.735 2.815	1.3812 + 5 1.4215 1.4631 1.5059 1.5499 1.5499 1.6419 1.6899 1.7393	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
285000 285500 286000 286500 287000 287500 288500 288500 289500	288949 289463 289977 290491 291005 291519 292033 292548 293062 293576	884.0 884.0 884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	2.897 + 1 2.982 3.069 3.159 3.251 3.346 3.444 3.545 3.648 3.755	1.8425 + 5 1.8764 1.9518 2.0089 2.0677 2.1281 2.1903 2.2544 2.3203 2.3882	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
290000 290500 291000 291500 292500 293000 293500 293500 294500	294090 294604 295119 295633 296147 296661 297176 297690 298204 298719	884.0 884.0 884.8 885.9 887.1 888.2 889.4 890.5	8.173 - 6 8.173 8.173 8.186 8.205 8.223 8.242 8.242 8.260 8.279 8.297	6.7974 - 1 6.7974 6.7974 6.8082 6.8236 6.8391 6.8545 6.8699 6.8853 6.9007	3.865 + 1 3.978 4.094 4.228 4.372 4.521 4.675 4.833 4.997 5.165	2.4580 + 5 2.5299 2.6038 2.6890 2.7809 2.8756 2.9734 3.0741 3.1781 3.2852	2.638 - 6 2.638 2.638 2.642 2.649 2.655 2.662 2.668 2.675 2.681	6.4848 - 1 6.4848 6.4848 6.4959 6.5120 6.5280 6.5441 6.5601 6.5761 6.5921
295000 295500 296000 296500 297600 297500 298000 298500 297000 299500	299233 299748 300262 300777 301291 301806 302321 302835 303850 303864	892-8 893-9 895-1 896-2 897-4 898-5 899-6 900-7 901-9 903-0	8.316 - 6 8.334 8.353 8.371 8.390 8.408 8.426 8.445 8.445	6.9161 - 1 6.9314 6.9468 6.9621 6.9774 6.9926 7.0079 7.0231 7.0383 7.0535	5.339 + 1 5.518 5.703 5.893 6.089 6.291 6.499 6.714 6.935 7.163	3.3957 + 5 3.5095 3.6269 3.7479 3.8726 4.0011 4.1335 4.2700 4.4106 4.5554	2.688 - 6 2.694 2.701 2.707 2.714 2.720 2.727 2.733 2.746	6.6082 - 1 6.6242 6.6401 6.6561 6.6721 6.6881 6.7040 6.7200 6.7359 6.7518
300000	304379	904.1	8.499 - 6	7.0687 - 1	7.397 + 1	4.7046 + 5	2.753 - 6	6.7677 - 1
								· _

Altit	tude	Sound speed	Coefficient	of viscosity	Kinematic	viscosity	Thermal o	onductivity
Z, ft	H, ft	C _s ,	μ , lb ft $^{-1}$ sec $^{-1}$	$\frac{\mu}{\mu_0}$	η , ft 2 sec $^{-1}$	$\frac{\eta}{\eta_0}$	k , BTU f1 ⁻¹ sec ⁻¹ (°R) ⁻¹	k k _O
270000 270500 271500 271500 271500 272500 273500 273500 274500	266549 267036 267523 268010 268498 268985 269472 269959 270446 270933	884.0 884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	1.000 + 1 1.029 1.058 1.088 1.119 1.151 1.184 1.217 1.252	6.3608 + 4 6.5420 6.7283 6.9200 7.1171 7.3198 7.5282 7.7426 7.9631 8.1899	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
275000 275500 276000 276500 277500 277500 278500 278500 279000 279500	271420 271908 272395 272882 273369 273856 274342 274829 275316 275803	884.0 884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	1.324 + 1 1.362 1.401 1.441 1.482 1.524 1.567 1.612 1.658	8.4231 + 4 8.6629 8.9095 9.1632 9.4240 9.6923 1.0252 + 5 1.0544 1.0844	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
280000 280500 281000 281500 282000 282500 283500 284000 284500	276290 276777 277264 277750 278237 278724 279211 279697 280164 280671	884.0 884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	1.75% + 1 1.803 1.855 1.908 1.908 2.018 2.075 2.13% 2.195 2.257	1.1152 + 5 1.1470 1.1796 1.2132 1.2477 1.2832 1.3197 1.3573 1.3959 1.4356	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
285000 285500 286000 286500 287000 287500 288000 288000 289500	281157 281644 282130 282617 283103 283590 284076 284563 285049 285536	884.0 884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	2.321 + 1 2.387 2.455 2.525 2.527 2.671 2.747 2.825 2.905 2.988	1. b 76b + 5 1.518b 1.55016 1.6060 1.6517 1.6987 1.7b70 1.7967 1.8b78 1.9003	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
290000 290500 291000 291500 292000 292500 293500 293500 294500	286022 286509 286995 287481 287967 288940 289426 289912 290399	884.0 884.0 884.0 884.0 884.0 884.0	8.173 - 6 8.173 8.173 8.173 8.173 8.173 8.173 8.173 8.173	6.7974 - 1 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974 6.7974	3.073 + 1 3.160 3.250 3.342 3.337 3.535 3.636 3.739 3.645 3.955	1.9543 + 5 2.0099 2.0670 2.1258 2.1862 2.2484 2.3123 2.37280 2.4456 2.5151	2.638 - 6 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638 2.638	6.4848 - 1 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848 6.4848
295000 295500 296000 296500 297500 297500 298500 298500 299500	290885 291371 291857 292343 292829 293315 293801 294287 294773 295259	884.0 884.5 885.6 886.7 887.8 889.0 890.1 891.2 892.3 893.4	8.173 - 6 8.181 8.199 8.218 8.236 8.254 8.272 8.270 8.308 8.326	6.7974 - 1 6.8042 6.8192 6.8342 6.8492 6.8642 6.8742 6.8942 6.9091	4.067 + 1 4.191 4.331 4.474 4.622 4.774 5.931 5.93 5.260 5.431	2.5866 + 5 2.6657 2.7543 2.8456 2.9396 3.0365 3.1364 3.2392 3.3451 3.4543	2.638 - 6 2.647 2.647 2.653 2.666 2.666 2.672 2.679 2.685 2.691	6.4848 - 1 6.4918 6.5074 6.5230 6.5386 6.5582 6.5698 6.5853 6.6009 6.6164
300000	295745	894.5	8.343 - 6	6.9389 - 1	5.608 + 1	3.5666 + 5	2.698 - 6	6.6320 - 1

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Table VII GEOPOTENTIAL ALTITUDE IN METERS AS A FUNCTION OF PRESSURE IN MILLIBARS

GEOPOTENTIAL ALTITUDE IN METERS as a function of PRESSURE IN MILLIBARS

P, mb	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
8.60 8.70 8.80 8.90	31 985 31908 31833	31977 31901 31825	31969 31893 31818	31962 31885 31810	31954 31878 31803	31946 31870 31 79 5	31939 31863 31788	31931 31855 31780	32000 31923 31848 31773	31992 31916 31840 31765
9.00	31758	31751	31743	31736	31728	31721	31714	31 706	31699	31691
9.10	31684	31677	31669	31662	31655	31647	31640	31 633	31626	31618
9.20	31611	31604	31597	31589	31582	31575	31568	31 560	31553	31546
9.30	31539	31532	31524	31517	31510	31503	31496	31 489	31482	31474
9.40	31467	31460	31453	31446	31439	31432	31425	31 41 8	31411	31404
9.50	31397	31390	31383	31376	31369	31362	31355	31348	31341	31334
9.60	31327	31320	31313	31306	31299	31292	31285	31278	31271	31265
9.70	31258	31251	31244	31237	31230	31223	31217	31210	31203	31196
9.80	31189	31182	31176	31169	31162	31155	31149	31142	31135	31128
9.90	31122	31115	31108	31101	31095	31088	31081	31075	31068	31061

P, mb	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
10.00 10.10 10.20 10.30 10.40 10.50 10.60 10.70 10.80 10.90	31 055 30 988 30 923 30 858 30 793 30 730 30 667 30 664 30 542 30 481	31048 30982 30916 30851 30787 30723 30660 30598 30536 30475	31041 30975 30910 30845 30781 30717 30654 30592 30530 30469	31035 30969 30903 30838 30774 30711 30648 30585 30524 30463	31028 30962 30897 30832 30768 30704 30642 30579 30518 30457	31021 30955 30890 30825 30761 30698 30635 30573 30512 30451	31015 30949 30884 30819 30875 30692 30629 30567 30505 30444	31008 30942 30877 30813 30749 30685 30623 30561 30499 30438	31 002 30936 30871 30806 30742 30679 30617 30555 30493 30432	30995 30929 30864 30800 30736 30673 30610 30548 30487 30426
11.00 11.10 11.20 11.30 11.40 11.50 11.60 11.70 11.80 11.90	30420 30360 30300 30241 30183 30125 30067 30011 29954 29898	30414 30355 30295 30236 30177 30177 30062 30062 30948 29893	30408 30348 30289 30230 30171 30113 30056 299943 29887	30402 30342 30283 30224 30165 30108 30050 29994 29937 29881	30396 30336 30377 30218 30160 30102 30045 29982 29876	30390 30330 30271 30212 30154 30096 30039 29982 299870	30384 30324 30265 30206 30148 30090 30033 29927 29920 29865	30378 30318 30319 30200 30142 30085 30028 29911 29915 29859	30372 30312 303153 30195 30197 30027 30022 29965 29969 29854	30366 30306 30247 30189 30131 30073 30016 29960 29904 29848
12.00 12.10 12.20 12.30 12.40 12.50 12.60 12.60 12.80 12.90	29843 29788 29733 29625 29625 29572 29519 29467 29415 29364	29837 29782 29782 29674 29620 29567 29514 29462 29462 29359	29832 29777 29772 29668 29665 29562 29509 29457 29455 29353	29826 29771 29717 29763 29609 29556 29556 29451 29400 29348	29821 29766 29711 29657 29657 29551 29498 29446 29395 29343	29815 29760 29766 29652 29599 29546 29493 29441 29389 2938	29810 29755 29761 29647 29540 29540 29488 29438 294384 29333	29804 29749 29695 29641 29535 29483 29431 29379 29328	29799 29744 29690 29636 29530 29530 29477 29426 29374 29323	29793 29739 29684 29631 29577 29525 29472 29420 29369 29318
13.00 13.10 13.20 13.30 13.40 13.50 13.60 13.70 13.80 13.90	29313 29262 29212 29162 29112 29063 29014 28918 28918 28870	29308 29257 29257 29157 29107 29058 29009 28961 28913 28866	29302 29252 29252 29152 29152 29053 29055 28956 28908 28861	29297 29247 29197 29197 29097 29048 29052 289052 28904 28856	29292 29242 29192 29142 29093 29093 28995 28995 28899 28851	29287 29237 29187 29187 29137 29039 28990 28942 28894 28847	29282 29232 29182 29183 29034 28985 28987 28889 288842	29277 29227 29177 29177 29178 29029 28980 28982 28885 28837	29272 29222 29172 29172 29073 29024 28976 28928 28880 28832	29267 29217 29167 29167 29068 29019 28971 28972 28875 28828
14.00 14.10 14.20 14.30 14.40 14.50 14.60 14.60 14.80 14.90	28823 28776 28729 28683 28637 28591 28546 28546 28456 28412	28818 28771 28725 28678 28633 28587 285497 28497 28492 28408	28814 28767 28720 286274 28628 28582 28587 285448 28448 28403	28809 28762 28715 28669 28623 28578 28533 28488 28443 28399	28804 28757 28711 28665 28619 28573 28528 28483 28483 28439 28394	28799 28753 28706 28660 28614 28569 28529 28527 28434 28390	28795 28748 28702 28655 28610 28564 28519 28430 28430 28386	26790 28743 28697 28695 28605 28560 28515 28470 28425 28425 28381	28785 28739 28692 28692 28601 28555 28510 28465 28421 28377	28781 28734 28688 28642 28596 28551 28561 28461 28417 28372
15.20 15.20 15.40 15.50 15.60 15.70 15.80 15.90	28368 28324 28281 28238 28195 28152 28110 28026 27985	28364 28320 28277 28233 28191 28148 28106 28064 28022 27980	28359 28316 28272 28289 28186 28144 28101 28059 28018 27976	28355 28311 28268 28225 28182 28139 28097 28095 28014 27972	28351 28307 28264 28220 28178 28135 28093 28051 28009 27968	28346 28303 28259 28216 28173 28131 28089 28047 28005 27964	28342 28298 28255 28212 28169 28127 28085 28043 28001 27960	28337 28294 28251 28268 28165 28123 28080 28039 27997 27956	28333 28290 28246 28203 28161 28118 28076 28034 27993 27952	28329 28285 28249 28199 28156 28114 28030 27989 27947
16.00 16.10 16.20 16.30 16.40 16.50 16.60 16.80 16.90	27943 27902 27862 27821 27781 27741 27762 27662 27623 27584	27939 27898 27858 27817 27777 27777 27698 27658 27619 27580	27935 27894 27854 27813 27773 27733 27654 27654 27615 27576	27931 27890 27850 27869 27769 27729 27650 27611 27572	27927 27886 27846 27805 27765 27765 27686 27646 27646 27568	27923 27882 27841 27801 27761 27721 27682 27642 27603 27565	27919 27878 27837 27797 27757 27717 27678 27639 27599 27561	27915 27874 27833 27793 27753 27713 27635 27635 27596 27557	27911 27870 27829 27889 27749 27709 27631 27592 27553	27907 27866 27825 27785 27745 27705 27666 27627 27588 27549
17.00 17.10 17.20 17.30 17.40 17.50 17.60 17.60 17.80 17.90	27545 27507 27468 27430 27393 27355 27318 27281 27244 27207	27541 27503 27465 27427 27389 27351 27314 27277 27240 27203	27537 27499 27461 27423 27385 27348 27310 27273 27236 27200	27534 27495 27457 27457 27381 27384 27307 27269 27233 27196	27530 27491 27453 27415 27378 27340 27303 27266 27229 27192	27526 27488 27449 27411 27374 27336 27299 27262 27225 27189	27522 27484 27446 27446 27370 27373 27295 27295 27222 27185	27518 27480 27442 27404 27366 27329 27292 27255 27218 27181	27514 27476 27438 27400 27363 27325 27288 27251 27214 27178	27511 27472 27434 27396 27359 27321 27284 27247 27211 27174
18.00 18.10 18.20 18.30 18.40 18.50 18.60 18.70 18.80 18.90	27170 27134 27098 27062 27026 26991 26921 26886 26851	27167 27130 27094 27059 27023 26987 26982 26917 26882 26848	27163 27127 27091 27095 27019 26984 26949 26914 26879 26844	27159 27123 27087 27051 27016 26980 26945 26945 26875 26841	27156 27120 27084 27084 27012 26977 26942 26907 26872 26837	27152 27116 27080 27044 27009 26973 26938 26903 26868 26834	27149 27112 27076 27041 27005 26970 26935 26900 26865 26830	27145 27109 27073 27037 27002 26966 26931 26831 26861 26827	27141 27105 27069 27034 26998 26963 26963 26858 26858 26858	27138 27102 27066 27030 26995 26999 26924 26889 26854 26820
19.00 19.10 19.20 19.30 19.40 19.50 19.60 19.70 19.80	26816 26782 26748 26744 26680 26647 26681 26580 26547 26514	26813 267745 267745 26711 26677 26643 26610 26577 26544 26511	26810 26775 267741 26707 26673 26640 26607 26573 26540 26507	26806 26772 26738 26704 26670 26637 26603 26570 26537 26504	26803 26768 26768 26734 26700 26667 26633 26600 26567 26534 26501	26799 26765 26731 26697 26630 26630 26597 26563 26530 26498	26796 26762 26728 26694 26694 26627 26593 26593 26560 26527 26494	26792 26754 26724 26690 26657 26659 26590 26557 26524 26491	26789 26755 26755 267521 26687 26653 26620 26587 26553 26521 26488	26786 26751 26751 26684 26650 26617 26583 26550 26517 26484

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
20.00 212.00 223.00 23.00 25.00 26.00 26.00 28.00	26481 26163 25860 25570 25294 25029 24774 24530 24294 24068	26449 26132 25830 25542 255267 25749 24749 24571 24045	26416 26101 25801 25240 25240 24977 24725 24482 24248 24023	26384 26070 25771 25786 25213 24951 24750 24458 24225 24001	26352 26040 25742 25458 25186 24926 24675 24675 24233 23979	26320 26009 25713 25430 25160 24900 24651 24411 24180 23957	26288 25978 259684 25403 25133 24875 24626 24387 24157 23935	26257 25949 25949 25375 25107 24849 24602 24364 24135 23914	26225 25919 25948 25348 25081 24824 24578 24341 24112 23892	26194 25889 25599 255321 25055 24799 24554 24318 24090 23870
30.0 31.0 32.0 33.0 35.0 35.0 36.0 37.0 38.0	23849 23637 23432 23234 23042 22856 22675 22499 22328 22162	23827 23616 23616 23215 23023 22838 22657 22482 22311 22145	23806 235392 235392 231095 23819 22639 224495 222129	23784 23575 23575 23176 22986 22801 22622 22447 22278 22113	23763 23552 23157 23157 22967 22783 22604 22430 22261 22096	23742 23534 23533 23138 22948 229465 22586 22441 22244 22080	23721 235113 235113 225118 22747 22569 22569 22328 22064	23700 23493 23493 23099 22719 22551 22551 22379 22211 22048	23679 23473 23273 23080 228711 22534 22362 22195 22032	23658 23453 23261 23061 22874 22693 22517 22345 22178 22016
40.0 41.0 43.0 43.0 45.0 45.0 46.0 47.0 49.0	22000 21842 21688 21537 21390 21247 21107 20970 20836 20705	21984 21826 21672 21522 21376 21376 21093 20952 20952 20692	21968 21811 21657 21508 21362 21219 21079 20949 20949 20679	21952 21795 21642 21493 21347 21205 21066 20929 20796 20666	21936 21780 21478 21478 21333 21191 21052 20916 209183 20653	21920 21764 21612 21463 21318 21177 21038 20903 20770 20640	21904 21749 21749 21449 21304 21163 21024 20889 20757	21889 21733 21582 21434 21290 21149 21011 20876 20744 20614	21873 21718 217567 21420 21276 21135 20997 20862 20731 20602	21857 21703 21552 21405 21261 21121 20849 20718 20589
50.0 51.0 52.0 53.0 54.0 55.0 56.0 57.0 59.0	20576 20450 20327 20206 20287 19971 19857 19744 19634 19526	20563 20438 20438 20194 20176 19976 19845 19723 19623	20551 20425 20303 20182 20064 19834 19834 19722 19612	20538 20413 20290 20170 20052 19936 19823 19711 19601 19494	20525 20401 20478 20158 20158 20041 19925 19812 19925 19591 19483	20513 20388 20266 20146 20029 19914 19800 19689 19580 19472	20500 20376 20254 20135 20017 19902 19789 19669 19669	20488 20364 20242 20123 20006 19891 19778 19667 19558 19451	20475 20351 20230 20111 19879 19767 19666 19547	20463 20339 20218 20099 19982 19868 19756 19645 19537 19430
60.0 62.0 63.0 64.0 65.0 66.0 67.0 68.0	19419 19314 19211 19110 19010 18912 18815 18719 18625 18533	19409 19304 19301 19100 19000 18902 18805 18710 18616 18524	19398 19294 19191 19090 18990 18796 18796 18607 18514	19388 19283 19181 19080 18980 18882 18786 18691 18598 18505	19377 19273 19170 19070 18970 18973 18776 18588 18496	19367 19263 19160 19060 18961 18863 18767 18672 18579 18487	19356 19252 19150 19050 18951 18853 18757 18667 18478	19346 19242 19140 19040 18941 18844 18748 18653 18560 18469	19335 19232 19130 19030 18931 18834 18738 18644 18551 18460	19325 19221 19120 19020 18921 18824 18729 18635 18542 18451
70.0 71.0 72.0 73.0 74.0 75.0 76.0 77.0 78.0 79.0	18442 18352 18263 18175 18089 18004 17920 17837 17755 17675	18433 18343 18254 18167 18081 17996 17912 17829 17747 17667	18424 18334 18245 18158 18072 17987 17903 17821 17821 17739	18414 18325 18237 18149 18064 17979 17895 17813 17731	18405 18316 18228 18141 18055 17970 17887 17804 17723 17643	18396 18307 18219 18132 18046 17962 17878 17796 17715 17635	18387 18298 18210 18124 18038 17954 17870 17788 17707 17627	18378 18289 18202 18115 18029 17945 17862 17780 17699 17619	18370 18281 18193 18106 18021 17937 17854 17772 17691	18361 18272 18184 18098 18013 17928 17845 17763 17683 17603
80.0 81.0 82.0 83.0 85.0 85.0 86.0 87.0	17595 17516 17516 17438 17361 17285 17210 17136 17063 16990 16919	17587 17508 17430 174354 17278 17203 17129 17056 16983 16912	17579 17500 17423 17346 17270 17195 17121 17048 16976 16904	17571 17493 17415 17338 17263 17188 17114 17041 16969 16897	17563 17485 17407 17331 17255 17181 17107 17034 16962 16890	17555 17477 17470 17400 17323 17248 17173 17099 17027 16954 16883	17547 17469 17392 17316 17240 17166 17092 17019 16947 16876	17540 17461 17384 17308 17233 17158 17085 17012 16940 16869	17532 17454 17377 17301 17225 17151 17077 17005 16933 16862	17524 17446 17369 17293 17218 17144 17070 16998 16926 16855
90.0 91.0 92.0 93.0 95.0 95.0 96.0 97.0 99.0	16848 16778 16708 16672 16572 16505 16439 16308 16243	16841 16771 16702 16633 16565 16465 16432 16366 16301 16237	16834 16764 16695 16626 16559 16425 16425 16360 16295	16827 16757 16688 16620 16552 16485 16419 16353 16288 16224	16820 16750 16681 16613 16545 16445 16412 16347 16282 16218	16813 16743 16674 16606 16538 16472 16406 16376 16276	16806 16736 16667 16599 16532 16465 16399 16269 16269	16799 16729 16690 16592 16525 16458 16327 16327 16263	16792 16722 16654 16586 16512 16386 16452 16386 16256 16192	16785 16715 16647 16579 16512 16445 16314 16314 16250 16186
100.0 101.0 102.0 103.0 104.0 105.0 106.0 107.0 109.0	16180 16117 16054 15992 15931 15870 15810 15751 15692 15633	16173 16110 16048 15986 15985 15864 15804 15745 15686 15627	16167 16104 16042 15980 15919 15858 15798 15739 15630 15622	16161 16098 16036 15974 15913 15852 15792 15733 15674 15616	16154 16029 16029 15968 15967 15846 15786 15727 15668 15610	16148 16085 16023 15962 15961 15840 15780 15781 15662 15604	16142 16079 16017 15955 15834 15774 15775 15657	16135 16073 16011 15949 15888 15828 15768 15709 15651 15593	16129 16067 16067 15943 15882 15822 15763 15763 15765 15587	16123 16060 15998 15937 15876 15816 15757 15698 15639 15581
110.0 111.0 112.0 113.0 113.0 115.0 115.0 116.0 117.0 118.0	15575 15518 15461 15465 15349 15293 15293 15184 15130 15077	15570 15512 15455 15399 15343 15288 15233 15179 15125	15564 15506 15450 15393 15338 15282 15173 15119 15066	15558 15501 15444 15388 15332 15277 15222 15168 15114 15061	15552 15495 15438 15438 15382 15327 15271 15217 15162 15109 15055	15547 15489 15433 15377 15321 15266 15211 15157 15103 15050	15541 15484 15427 15371 15315 15260 15152 15098 15045	15535 15478 15422 15365 15310 15255 15200 15146 15093 15039	15529 15472 15416 15360 15304 15249 15141 15087 15034	15524 15467 15454 153299 15244 15135 15082

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
120.0 121.0 122.0 123.0 124.0 125.0 126.0 127.0 128.0	15023 14971 14919 14867 14816 14765 14714 14664 14614 14565	15018 14966 14913 14862 14810 14760 14769 14659 14609	15013 14960 14967 14857 14855 14754 14754 14654 14654 14655	15008 14955 14903 14851 14800 14749 14649 14649 14599	15002 14950 14898 14896 14795 14744 14644 14594 14594	14997 14945 14893 14891 14790 14739 14689 14589 14589	1 4992 1 4940 1 4888 1 4856 1 4785 1 4734 1 4684 1 4634 1 4585 1 4535	14987 14934 14882 14831 14780 14729 14629 14629 14580 14531	14981 14929 14877 14876 14775 14724 14624 14624 14575 14526	14976 14924 14872 14821 14770 14719 14669 14570 14521
130.0 131.0 132.0 132.0 134.0 135.0 136.0 137.0 138.0 139.0	14516 14467 14419 14371 14324 14230 14183 141837 14091	14511 14462 14414 14366 14317 14227 14225 14173 14087	14506 14459 14462 14362 14314 14267 14220 141128 14082	14501 14453 14405 14357 14310 14262 14216 14169 14163 14078	14496 14448 14400 14352 14355 14258 14211 14165 14119 14073	14492 14443 14395 14397 14300 14253 14206 14160 14114 14069	14487 14438 14390 14343 14295 14202 14202 14110 14064	14482 14434 14338 14338 14291 14294 14197 14105 14105	14477 14429 14381 14333 14286 14239 14193 14146 14101 14055	14472 14424 14376 14328 14281 14234 14188 14142 14096 14050
140.0 141.0 142.0 143.0 144.0 145.0 146.0 147.0 148.0 149.0	14046 14001 13956 13911 13867 13863 13780 13737 13694 13651	14041 13996 13952 13907 13863 13819 13775 13732 13689 13647	14037 139947 139947 13903 13858 13815 13771 13728 13685 13642	14032 13987 13943 13948 13854 13810 13767 13724 13681 13638	14028 13983 13938 13894 13850 13806 13762 13719 13676 13634	14023 13978 13934 13984 13889 13845 13758 13775 13672 13630	14019 13974 13929 13885 13841 13797 13754 13711 13668 13625	14014 13969 13925 13881 13837 13793 13749 13746 13664 13621	14010 13965 13920 13876 13832 13789 13745 13702 13659 13617	14005 13960 13916 13876 13828 13784 13741 13698 13655 13613
150.0 151.0 152.0 152.0 154.0 155.0 156.0 157.0 158.0	13608 13566 13524 13483 13442 13440 13360 13319 13319	13604 13562 13520 13479 13437 13396 13356 13315 13275 13235	13600 13558 13516 13475 13433 13392 13352 13311 13271 13231	13596 13554 13512 13470 13429 13388 13348 13307 13267 13267	1 3592 1 3549 1 3568 1 3466 1 3425 1 3384 1 3343 1 3303 1 3263 1 3223	13587 13545 13504 13462 13421 13380 13339 13259 13259	13583 13541 13458 13458 13417 13376 13335 13295 13295 13215	13579 13537 13495 13454 13413 13372 13331 13291 13251 13211	13575 13533 13491 13450 13469 13368 13327 13287 13287	13570 13529 13487 13446 13405 13364 13323 13283 13283
160.0 161.0 162.0 163.0 164.0 165.0 166.0 167.0 168.0 169.0	13199 13160 13120 13081 13043 13044 12966 12928 12890 12852	13195 13156 13116 13077 13039 13000 12962 12924 12886 12848	13191 13152 13174 13074 13035 12998 12998 12982 12882	13187 13148 13109 13070 13031 12992 12954 12916 12878 12841	13183 13144 13105 13066 13027 12950 12950 12912 12837	13179 13140 13101 13062 13023 12985 12947 12909 12871 12833	13175 13136 13058 13019 13019 12943 12943 12967 12830	13171 13132 13093 13054 13016 12977 12939 12901 12863 12826	13167 13128 13089 13050 13012 12973 12935 12867 12880 12822	13164 13124 13085 13046 13046 12969 12931 12856 12818
170.0 171.0 172.0 173.0 174.0 175.0 176.0 177.0 178.0 179.0	12815 12777 12740 12704 12667 12631 12595 12559 12553 12488	12811 12774 12737 12730 12664 12627 12591 12555 12519 12484	12807 12770 127733 12696 12660 126588 12552 125516 125480	12803 12766 12729 12693 12656 12650 12584 12548 12512 12477	1 2800 1 2763 1 2726 1 2689 1 2653 1 2616 1 2580 1 2544 1 2509 1 2473	12796 12759 12722 12685 12649 12613 12577 12541 12505 12470	1 2792 1 2755 1 2718 1 2682 1 2645 1 2609 1 2573 1 2537 1 2502 1 2466	12789 12752 12715 12678 12642 12606 12570 12534 12498 12463	12785 12748 12711 12674 12638 12602 12566 12566 12495 12495	12781 12744 12707 12671 12634 12598 12562 12562 12491 12496
180.0 181.0 182.0 183.0 184.0 185.0 186.0 187.0 188.0 189.0	12452 12417 12382 12347 12313 12278 12244 12210 12176 12143	12449 12414 12379 12344 12309 12275 12241 12207 12173 12139	12445 12410 12375 12340 12306 12272 12237 12203 12170 12136	12442 12407 12372 12337 123302 12268 12234 12200 12166 12133	12438 12403 12368 12339 12239 12265 12231 12197 12163 12129	12435 12400 12365 12330 12296 12261 12227 12193 12160 12126	12431 12396 12361 12327 12292 12258 12224 12190 12156 12123	12428 12393 12358 123289 122264 12220 12187 12119	12424 12389 12354 12320 12251 12251 12217 12183 12149 12116	12421 12386 12351 12352 12282 12248 12214 12180 12113
190.0 191.0 192.0 193.0 194.0 195.0 196.0 197.0 198.0	12109 12076 12043 12010 11977 11945 11912 11880 11848 11816	12106 12073 12040 12007 11974 11941 11909 11877 11845 11813	12103 12069 12036 12003 11971 11938 11906 11873 11874 11809	12099 12066 12033 12000 11967 11935 11902 11870 11838 11806	12096 12063 12030 11997 11964 11932 11899 11867 11835 11803	12093 12059 12026 11994 11961 11928 11896 11864 11832 11800	12089 12056 12023 11990 11958 11925 11893 11861 11829 11797	12086 12053 12020 11987 11954 11952 11850 11857 11855 11794	12083 12050 12017 11984 11951 11919 11886 11854 11852 11790	12079 12046 12013 11988 11915 11883 11851 11819
200.0 201.0 202.0 203.0 203.0 205.0 205.0 205.0 206.0 209.0	11784 11752 11721 11658 11627 11527 11596 11535 11505	11781 11749 11718 11686 11655 11624 11594 11563 11532 11502	11778 11746 11715 11683 11652 11652 11590 11560 11529 11499	11775 11743 11712 11680 11649 11618 11587 11557 11556 11496	11771 11740 11708 11677 11646 11615 11584 11552 11523	11768 11737 11705 11674 11643 11612 11581 11551 11520 11490	11765 11734 11702 11671 11640 11609 11578 11548 11517	11762 11730 11699 11668 11637 11606 11575 11544 11514	11759 11727 11696 11665 11634 11603 11572 11574 11511 11481	11756 11724 11693 11663 11631 11630 11538 11508 11478
210.0 211.0 212.0 213.0 215.0 215.0 215.0 215.0 215.0	11475 11445 11415 11385 11385 11325 11296 11296 11238 11209	11472 11441 11412 11382 11352 11352 11293 11293 11295 11206	11469 11438 11409 11379 11349 11320 11290 11291 11232 11203	11466 11435 11406 11376 11346 11317 11288 11229 11200	11463 11432 11403 11373 11343 11314 11284 11285 11255 11256	11460 11429 11400 11370 11340 11311 11281 11252 11223 11194	11457 11426 11397 11367 11337 11308 11278 11220 11220 11191	11454 11423 11394 11364 11334 11305 11276 11276 11217	11451 11421 11391 11361 11331 11302 11273 11243 11214 11185	11448 11418 11388 11358 11328 11299 11270 11240 11211 11182

TABLE VII - Continued

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
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230.0 231.0 232.0 233.0 233.0 235.0 235.0 237.0 237.0 239.0	10898 10870 10842 10815 10788 10760 10733 10706 10679 10653	10895 10867 10840 10812 10785 10758 10731 10704 10677 10650	10892 10864 10837 10810 10782 107755 10728 10701 10647	10889 10862 10834 10834 10780 10752 10755 10671 10644	10887 10859 10831 10804 10777 10750 10723 10669 10669	10884 10856 10829 10801 10774 10720 10693 10666 10639	10881 10853 10826 10799 10771 10744 10717 10690 10663 10636	10878 10851 10823 10796 10769 10741 10714 10661 10634	10875 10848 10821 10793 10766 10739 10712 10685 10658 10631	10873 10845 10818 107790 10763 10736 10709 10682 10655
2412.0 2412.0 2443.0 245.0 245.0 245.0 245.0 245.0	10626 10599 10546 10546 10520 10493 10447 10441 104415	10623 10596 10570 10543 10517 10491 10464 10438 10412	10620 10594 105567 10541 10514 10488 10462 10430 10430	10618 10591 10565 10538 10512 10485 10459 10433 10407	10588 10582 10535 10509 10483 10457 10430 10430 104378	10612 10586 10533 10536 10480 10428 10428 10402 10376	10610 10587 105530 105504 10504 10451 10425 104399 10373	10607 10580 10584 10527 10501 10475 10449 10423 10397	10604 10578 10525 10525 10499 10472 10446 10420 10394 10368	10602 10575 10545 10542 10496 10470 10443 10417 10391
250.0 251.0 252.0 253.0 255.0 255.0 256.0 256.0 257.0 259.0	10363 10337 10311 10286 10260 10235 10209 10184 10159 10134	10360 10335 10309 10283 10258 10232 10207 10181 10156	10358 10332 103306 10281 10255 10255 10250 10279 10179	10355 10329 10304 10278 10253 10227 10202 10176 10151 10126	10353 10327 10301 10276 10250 10225 10199 10174 10149	10350 10324 10299 10273 10247 10222 10197 10171 10146 10121	10347 10322 10296 10270 10245 10219 10194 10169 10164 10119	10345 10319 10293 10268 10242 10217 10192 10166 10141 10116	10342 10317 10291 10265 10240 10214 10189 10164 10139 10114	10340 10314 10288 10287 10212 10187 10161 10136
260.0 261.0 262.0 263.0 265.0 265.0 266.0 267.0 268.0 269.0	10109 10084 10059 10034 10009 9984 9960 9935 9911	10106 10081 10056 10031 10036 9982 9957 9933 9908 9884	10104 10079 10029 10029 10004 9979 9955 9930 9906	10101 10076 10051 10026 10002 9977 9952 9928 9903 9879	10098 10074 10024 9999 9974 9950 9955 9901 9876	10096 10071 10046 10021 9997 9972 9947 9947 9989 9874	10093 10069 10044 10019 9994 9969 9945 99896 9872	10091 10066 10041 10016 9992 9967 9942 9918 9894 9869	10089 10064 10039 10014 9989 9965 9940 9916 9891	10086 10061 10036 10011 9987 9962 9938 9913 9889 9864
270.0 271.0 272.0 273.0 275.0 275.0 276.0 278.0 279.0	9862 9838 9813 9789 9765 9741 9717 9694 9670 9646	9859 9835 9811 9787 9763 9739 9715 9667 9667	9857 9833 9809 9785 9761 9737 9713 9689 9665 9641	9855 9830 9806 9782 9758 9714 9710 9686 9663 9639	9852 9828 9804 9780 9756 9732 9708 9684 9680 9637	9850 9826 9801 9777 9753 9729 9706 9682 9658 9634	9847 9823 9799 9775 9751 9703 9679 9656	9845 9821 9797 9773 9749 9725 9701 9677 9653 9630	9842 9818 9794 9770 9746 9722 9698 9675 9651 9627	9840 9816 9792 9764 9720 9672 9649 9625
280.0 281.0 282.0 283.0 285.0 285.0 286.0 287.0 288.0 289.0	9623 9599 95576 95529 95805 9482 9459 9433	9620 9597 9573 95526 9503 9480 9457 9411	9618 9594 95547 95524 9578 9454 9454 9438	9515 95568 95545 95459 94475 9459 9450 9406	9613 9590 9543 9543 9519 9473 9450 9450 9404	9611 9587 9564 9517 9547 9494 9471 9425 9402	9608 9585 9561 9535 9499 9465 9465 9422 939	9683 95556 95512 95469 94463 94420 937	9604 9580 9557 9533 9510 9487 9464 9418 9395	9601 9578 9554 95531 9508 9485 9468 9438 9435 9392
290.0 291.0 292.0 293.0 295.0 295.0 296.0 297.0 298.0	9390 9367 9344 9322 9299 9276 9254 9231 9209 9186	9388 9365 9342 9319 9297 9274 9251 9229 9206 9184	9385 9363 9317 9317 9294 9272 9249 9227 9204 9182	9383 9360 9337 9315 9292 9269 9247 9224 9202 9180	9381 9358 9358 9312 9290 9245 9222 9200 9177	9379 9356 9333 9310 9288 9265 9242 9220 9197 9175	9376 9353 9353 9308 9285 9285 9240 9218 9195 9173	9374 9351 9328 9306 9283 9260 9238 9215 9173	9372 9349 9326 9303 9281 9258 9213 92191 9168	9369 9347 9324 9301 9278 9256 9231 9211 9189 9166
300.0 301.0 302.0 303.0 304.0 305.0 306.0 307.0 308.0 309.0	9164 9142 9119 9097 9075 9053 9031 9009 8987 8966	9162 9139 9117 9095 9073 9051 9029 9007 8985 8963	9159 9137 9115 9093 9071 9047 90027 9005 8983	9157 9135 9113 9091 9069 9047 9025 9003 8981 8959	9155 9133 9111 9088 9066 9064 9022 9001 8979 8957	9153 9131 9108 9084 9042 9042 9998 8977 8955	9151 9128 9106 9084 9062 9040 9018 8996 8974 8953	9148 9126 9104 9082 9038 9038 9016 8972 8950	9146 9124 9102 9080 9058 9036 9014 8970 8948	9144 9122 9107 9055 9033 9011 8990 8968 8946
310.0 311.0 312.0 313.0 314.0 315.0 316.0 317.0 318.0 319.0	8944 8922 8901 8807 8857 8856 8815 8772 8751	8942 8920 8898 8877 8855 8834 8812 8770 8749	8940 8918 8896 8875 8853 8832 8810 8768 8768	8937 8916 8894 8873 8851 8830 8808 8787 8766 8744	8935 8914 8892 8870 8849 8827 8806 8763 8763	8933 8911 8890 8868 8847 8825 8804 8783 8761 8740	8931 8909 8886 8845 8823 8802 8759 8738	8929 8907 8885 8864 8842 8821 88778 8778 8757	8927 8905 8883 8862 8840 8819 8797 8776 8755 8734	8924 8903 8886 8838 8817 8774 8774 8753 8732

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
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330.0 331.0 332.0 333.0 334.0 335.0 336.0 337.0 338.0 339.0	8520 8500 8479 8459 8438 8438 8397 8377 8357	8518 8498 84457 84453 84336 843755 83355	8516 8496 8495 8455 8414 8393 83753 83333	8514 8494 8473 8453 8452 8412 8391 8351	8512 8492 84971 8451 8430 8389 8369 8369 8329	8510 84909 8448 8448 8428 8387 8367 8367	8508 8487 8467 84466 8426 83855 8345 8325	8506 8485 84464 84424 84363 83343 83342	8504 8483 8462 84422 8402 8361 8361 8341	8502 8481 84420 83379 83359 8318
340.0 341.0 342.0 343.0 344.0 345.0 345.0 346.0 346.0 348.0	8316 8296 8276 8256 8236 8216 8196 8177 8157 8157	8314 8294 8274 8254 8214 8214 8195 8155 8155	8312 8292 8272 8252 8212 81173 8153 8153	8310 8290 8270 8250 8210 8110 8171 8151	8308 8288 82648 82208 8189 8169 8129	8306 8286 8266 8246 8226 8186 8187 8147 8127	8304 8284 8264 8224 8224 8185 8165 8145	8302 8282 82642 82222 8202 8183 8143 8123	8300 8280 8260 8240 8220 8180 8161 8141 8121	8298 8278 82538 8218 8198 8179 8159 8139
350.0 351.0 352.0 353.0 354.0 355.0 356.0 356.0 357.0 358.0	8117 8098 8078 8058 8039 8019 8000 7981 7961	8115 8096 8096 8056 8037 7998 7979 7959	8113 8094 8094 8054 8035 8016 7996 7977 7957	8111 8092 8072 8073 8033 8014 7994 7995 7955	81 09 80 90 80 70 80 51 80 12 79 92 79 93 79 53 79 34	8107 8088 8068 8069 8010 7991 7952 7932	8105 8086 8066 8047 8027 8008 7989 7950 7930	8103 8084 8064 8065 8006 7987 7948 7928	8102 8082 8062 8063 8004 7985 7946 7926	8100 8080 8060 8061 8002 7982 7963 7944 7925
360.0 361.0 362.0 363.0 365.0 365.0 366.0 366.0 367.0	7923 7903 7884 7865 7846 7827 7808 7789 7770 7751	7921 7901 7882 7863 7844 7825 7806 7787 7768 7749	7919 7900 7880 7861 7842 7842 7804 7785 7766 7747	7917 7898 7878 7859 7840 7821 7802 7783 7764 7746	7915 7896 7897 7857 7838 7819 7800 7781 7763 7744	7913 7894 7895 7856 7836 7817 7798 7780 7781 7742	7911 7892 7873 7854 7835 7816 7797 77978 7759 7740	7909 7890 7871 7852 7833 7814 7795 7776 7757 7738	7907 7888 7869 7850 7831 7812 7793 7774 7755 7736	7905 7886 7867 7848 7829 7810 7791 7772 7773 7734
370.0 371.0 372.0 373.0 374.0 375.0 376.0 376.0 377.0	7732 7714 7695 7676 7657 7639 7620 7602 7583 7565	7730 7712 7693 7674 7656 7637 7618 7600 7581 7563	7729 7710 7691 7672 7654 7635 7616 7599 7561	7727 7708 7689 7652 7652 7633 7615 7596 7578 7559	7725 7706 7687 7669 7650 7631 7613 7594 7576	7723 7704 7685 7667 7648 7649 7611 7594 7555	7721 7702 7684 7665 7646 7628 7609 7590 7572 7554	7719 7700 7682 7663 7644 7626 7607 7589 7570 7552	7717 7699 7680 7661 7642 7624 7605 7587 7568 7550	7715 7697 7678 7659 7641 7622 7603 7585 7566 7548
380.0 381.0 382.0 383.0 384.0 385.0 386.0 387.0 388.0 388.0	7546 7528 7509 7491 7473 7455 7436 7418 7400 7382	7544 7526 7508 74089 7471 7455 7416 7380	7542 7524 7506 7487 7469 7453 7415 7415 7378	7541 7522 7504 7486 7487 7449 7431 7413 7395 7377	7539 7520 7502 7484 7466 7447 7429 7411 7393 7375	7537 7519 7500 7482 7464 7445 7427 7409 7373	7535 7517 7498 7480 7482 7444 7425 7407 7389	7533 7515 7497 7478 7460 7442 7424 7406 7387 7369	7531 7513 7495 7476 7458 7440 7422 7404 7386 7368	7530 7511 7493 7475 7456 7438 7420 7402 7384 7366
390.0 391.0 392.0 393.0 394.0 395.0 396.0 397.0 398.0	7364 7346 7328 7310 7292 7274 7256 7239 7221 7203	7362 7344 7328 7308 7290 7297 7255 7255 7219 7201	7360 7342 7324 7306 7289 7253 7253 7235 7217 7200	7359 7341 7323 7305 7287 7269 7251 7253 7216 7198	7357 7339 7321 7303 7285 7267 7249 7231 7214 7196	7355 7337 7319 7301 7283 7265 7247 7230 7212 7194	7353 7335 7317 7299 7281 7264 7246 7248 7210 7192	7351 7333 7315 7297 7280 7262 7244 7226 7208 7191	7350 7332 7314 7296 7278 7260 7242 7224 7207 7189	7348 7330 7312 7294 7276 7258 7240 7240 7205 7187
400.0 401.0 402.0 403.0 405.0 406.0 406.0 408.0 409.0	7185 7168 7150 7133 7115 7080 7080 7063 7065 7028	7184 7166 7148 71431 7113 7078 7061 7061 7026	7182 7164 7147 7129 7112 7094 7077 7059 7042 7024	7180 7162 7145 7127 7110 7092 7075 7057 7040 7023	71 78 71 61 71 43 71 26 71 08 70 91 70 73 70 56 70 38 70 21	7177 7159 7141 7124 7106 7089 7071 7054 7037 7019	7175 7157 7140 7122 7105 7087 7070 7052 7035 7017	7173 7155 7138 7120 7103 7085 7068 7050 7033 7016	7171 7154 7136 7119 7101 7084 7066 7049 7031 7014	7170 7152 7134 7117 7099 7082 7064 7047 7030 7012
410.0 412.0 412.0 413.0 414.0 415.0 417.0 418.0 419.0	7011 6993 6976 6959 6942 6924 6907 6890 6873 6856	7009 6991 6974 6957 6940 6923 6986 6871 6854	7007 6990 6995 6955 6938 6921 6904 6887 6870 6853	7005 6988 6971 6954 6936 6919 6902 6885 6868 6851	7004 6986 6986 6952 6935 6917 6983 6886 6849	7002 6985 6985 6950 6933 6916 6882 6885 6847	7000 6983 6966 6948 6931 6914 6880 6863 6846	6998 6981 69647 69429 6912 6895 6878 6861 6844	6997 6979 6945 6945 6911 6896 6876 6859 6842	6978 6978 69969 6992 6992 6875 6851

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
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430.0 431.0 432.0 433.0 435.0 435.0 436.0 437.0 438.0 439.0	6671 6654 6638 6621 6604 6571 6553 6538 6522	6669 66526 6636 6619 6603 65703 65570 65537 6520	6667 66514 66618 6601 65568 65535 6519	6666 6649 6633 6616 6593 6566 6554 6517	6664 66431 6614 65981 65981 6565 65432 6516	6662 66429 6613 65980 6563 65563 65530 6514	6661 6644 6648 6611 65978 6561 6545 6545 6512	6659 66426 6626 66093 65560 65560 65547 6511	6657 66424 666081 65575 6558 65525 65525	6656 6639 6623 6626 6589 6573 6554 6554 6524 6507
440.0 441.0 442.0 443.0 445.0 445.0 445.0 445.0 447.0 448.0	6506 6489 6473 6477 6441 6424 6408 6392 6376 6360	6504 6488 6471 6455 6439 6406 63974 6358	6502 6486 6470 6454 6437 6421 6405 6389 6373 6356	6501 6484 6468 6452 6436 6419 6403 6387 6387 6355	6499 6483 6450 6450 6434 6402 63859 6353	6498 6481 6449 6449 6416 6400 6388 6352	6496 64863 64447 64431 64398 63366 6350	6494 6478 64462 6445 6429 6413 6397 6385 6348	6493 6476 64760 6444 6428 6411 63195 63763 63763	6491 6475 6458 6452 6426 6410 6397 6361 6345
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461.0 462.0 463.0 464.0 465.0 466.0 466.0 467.0 469.0	6184 6169 6153 6137 6122 6106 6090 6075 6059 6044	6183 6167 6151 6136 6120 6104 6089 60758 6042	6181 6166 6150 6134 6118 6103 6087 6072 6076 6040	6180 6164 6148 6133 6117 6101 6086 6070 6054 6039	6178 6162 6147 6131 6115 6100 6084 6068 6053	6177 6161 6145 6129 6114 6098 60867 6067 6051 6036	6175 6159 61428 6112 6097 6085 6050 6034	6173 6158 6142 6126 6111 6095 6079 6064 6048 6033	6172 6156 6140 6125 6109 6093 6078 6078 6047 6031	6170 6154 6139 6123 6107 6092 6076 6061 6045 6030
470.0 471.0 472.0 473.0 474.0 475.0 476.0 476.0 478.0 479.0	6028 6013 5997 5986 5951 5935 5920 5905 5890	6021 59980 59859 59459 5944 5919 5919 5888	6025 6009 5994 5979 5963 5948 5932 5912 5912 5886	6023 6008 5992 5977 5962 5946 5931 5916 5900 5885	6022 6006 59975 59965 59929 5919 5919 5883	6020 60089 5979 59759 5943 5948 5982 5882	6019 6003 5988 59777 5942 5942 5981 5886 5880	6017 6002 5986 5971 5950 5920 5920 5879	6016 6000 5985 5964 5933 59238 5983 5877	6014 5999 5983 5962 5937 5926 5891 5876
481.0 482.0 483.0 484.0 485.0 486.0 486.0 487.0 488.0	5874 5859 5844 5829 5914 57798 57763 57753 57738	5873 5858 58427 5812 5812 5792 5767 5767 5752	5871 5856 5841 5826 58795 5780 5765 5750 5735	5870 5854 5839 5829 5794 5779 5764 5749 5734	5868 5853 5833 5807 5777 5777 57762 57732	5867 5851 5836 5821 5791 5776 57761 5746 5731	5865 5850 5835 5820 5789 5774 5774 57749 57729	5864 5848 5833 5813 5788 5773 57758 57743 5728	5862 5847 5832 5811 5786 5771 5776 5741 5726	5861 5845 5830 5815 5785 5775 5775 57740 5725
491.0 492.0 493.0 495.0 495.0 496.0 496.0 497.0 498.0	5723 5708 5673 5673 5648 5648 5619 5619	5722 5707 5692 5697 5662 5647 5632 5617 5588	5720 5705 5670 5675 5660 5645 5631 5616 5586	5719 5704 5689 5679 5659 5644 5629 5614 5610 5585	5717 5702 5687 5672 5657 5628 5628 56138 55138	5716 5701 5686 5651 56541 5626 5626 55697 5582	5714 5699 5684 5654 5654 56210 56210 5595 5590	5713 55698 56653 56658 56628 56694 5579	5711 56981 56666 566517 56622 56692 5577	571 0 5695 5686 5650 5650 5635 5625 5591 5576
501.0 5002.0 5002.0 5004.0 5006.0 5006.0 5009.0	5560 5565 55345 55316 5516 55486 5472 5452 5443	55544 55514 55214 55214 5585 5485 5476 54451	5557 55557 555427 55513 55498 54483 54469 54454	5570 5555 5541 5524 5521 55497 5482 5467 5463 5438	5569 5554 5539 5524 5510 5495 5481 5466 5437	55532 555323 555323 55494 54476 54450 5435	55566 555361 555361 55507 54762 544763 54448 54434	5549 55535 55505 554762 54462 54432	5563 55548 55533 555089 55489 54466 54446 54431	5561 55546 5532 55508 55488 54459 5444 5430
5114.0 5114.0 5114.0 5114.0 515.0 517.0 517.0 517.0 517.0 517.0	5428 5414 5399 5385 5370 5356 5341 5327 5313	5427 5412 5398 5389 5369 5354 5346 5326 5311	5425 5411 5396 5382 5367 5353 5324 5310 5296	5424 5409 5395 5386 5352 5352 5323 5308 5294	5422 5408 5393 5364 5350 5350 5321 5307 5293	5421 5406 5392 5377 5363 5349 5320 5320 5326 5291	5419 5405 5390 5376 5362 5347 5318 5318 5304 5290	5418 5403 5389 5375 5360 5346 5317 5317 5303 5288	5417 5402 5387 5359 5359 5344 5316 5301 5287	5415 5401 5382 5357 5349 5314 5306

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610.0 611.0 612.0 613.0 613.0 615.0 616.0 616.0 618.0 619.0	4080 4067 4055 4042 4030 4017 4005 3993 3980 3968	4079 4066 4054 4041 4029 4016 4004 3991 3979 3966	4078 4065 4052 40427 4015 4003 3978 3965	4076 4064 4051 4039 4026 4014 4001 3989 3976 3964	4075 4062 4050 4037 4025 4012 4000 3988 3975 3963	4074 4061 4049 4034 4011 3999 3986 3974 3962	4073 4060 4047 4032 4010 3998 3973 3960	4071 4059 4046 4021 4009 3996 3984 3971 3959	4070 4057 4045 4032 4027 3995 3970 3958	4069 4056 4044 4031 4019 4006 3998 3981 3969 3957

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700.0 701.0 702.0 703.0 704.0 705.0 706.0 707.0 708.0 709.0	3012 3001 2990 2979 2967 2967 2945 2934 2923 2912	3011 3000 2989 2977 2966 2955 2944 2933 2922 2911	3010 2999 2988 2976 2965 2954 2943 2932 2932 2909	3009 2998 2986 2975 2975 2953 2942 2931 2942 2919 2908	3008 2996 2985 2974 2952 2952 2941 2929 2918 2907	.007 2995 2984 2973 2962 2951 2939 2928 2917 2906	3005 2994 2983 2972 2976 2949 2938 2927 2916 2905	3004 2993 2982 2971 2976 2948 2937 2936 2915 2904	3003 2992 2981 2958 2958 2947 2936 2925 2914 2903	3002 2991 2980 2968 2957 2955 2935 2924 2913 2902
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720.0 721.0 722.0 723.0 724.0 725.0 726.0 727.0 728.0 729.0	2790 2779 2768 2757 2746 2735 2724 2714 2703 2692	2789 2778 2767 2756 2756 2745 2734 2723 2712 2702 2691	2788 2777 2766 2755 2744 2733 2722 2711 2701 2690	2787 2776 2765 2765 2743 2743 2721 2721 2721 2699 2689	2786 2775 2764 2753 2742 2742 2729 2698 2687	2785 2774 27752 2752 2741 2730 2719 2708 2697 2686	2784 2773 2762 2761 2740 2729 2718 2707 2696 2685	2782 2771 2761 2750 2739 2728 2717 2706 2695 2684	2781 2770 2759 2758 2738 2727 2716 2705 2694 2683	2780 2769 2758 2758 2736 2716 2716 2693 2682
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800.0 801.0 802.0 803.0 805.0 805.0 806.0 808.0 809.0	1949 1939 1929 1919 1909 1899 18879 18869 1869	1948 1938 1928 1918 1908 1898 1868 1878	1947 1937 1927 1917 1907 1897 18877 18877 1867	1946 1936 1926 1916 1906 1896 1886 1886	1945 1935 1925 1915 1905 1885 1875 1885	1944 1934 1924 1914 1904 1884 1884 1864 1854	1943 1933 1923 1913 1903 1803 1863 1863 1863	1942 1932 1922 1912 1902 1892 1882 1882 1862	1941 1931 1921 1911 1901 1881 1871 1861 1851	1940 1930 1920 1910 1890 1887 1886 1860
810.0 811.0 812.0 813.0 814.0 815.0 816.0 817.0 818.0	1849 1839 1829 1819 1809 1799 1789 1779 1769	1848 1838 1828 1818 1808 1798 1798 1778 1768	1847 1837 1827 1817 1807 1797 1787 1777 1767	1846 1836 1826 1816 1806 1796 1776 1776 1766	1845 1835 1825 1805 1795 1775 1765 1755	1844 1834 1824 1814 1804 1794 1774 1764 1754	1843 1833 1823 1813 1803 1793 1783 1773 1763 1753	1842 1832 1822 1812 1802 1792 1782 1772 1762 1752	1841 1831 1821 1881 1801 1791 1781 1771 1761	1840 1830 1820 1810 1800 1790 1760 1760 1750

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
820.0 821.0 821.0 823.0 824.0 825.0 825.0 825.0 825.0 827.0 827.0	1749 1740 1730 1720 1710 1700 1690 1680 1671	1748 1739 1729 1719 1709 1699 1689 1679 1670 1660	1747 1738 1728 1718 1708 1698 1688 1689 1669	1746 1737 1727 1717 1707 1697 1687 1668 1668	1745 1736 1726 1716 1706 1696 1686 1687 1667	1744 1735 1725 1715 1705 1695 1685 1686 1666	1743 1734 1724 1714 1704 1694 1684 1665 1665	1742 1733 1723 1713 1703 1693 1683 1664 1664	1742 1732 1722 1712 1692 1682 1663 1663	1741 1731 1721 1711 1701 1691 1681 1672 1662 1652
830.0 831.0 832.0 833.0 835.0 835.0 836.0 837.0 839.0	1651 1641 1632 1622 1612 1602 1593 1583 1583	1650 1640 1631 1621 1611 1601 1592 1582 1582	1649 1639 1630 1620 1610 1600 1591 1581 1571	1648 1638 1619 1619 1509 1590 1580 1580	1647 1637 1638 1618 1608 1589 1589 1569	1646 1636 1627 1617 1697 1588 1578 1568	1645 1635 1626 1616 1596 1587 1567 1568	1644 1634 1625 1605 1595 1586 1576 1566	1643 1634 1614 1604 1595 1565 1566	1642 1633 1623 1613 1603 1594 1584 1584 1564
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TABLE VII - Continued

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P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
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1190.0 1191.0 1192.0 1193.0 1193.0 1195.0 1196.0 1197.0 1198.0 1199.0	-1377 -1384 -1392 -1399 -1406 -1414 -1421 -1428 -1435 -1443	-1378 -1385 -1392 -1407 -1414 -1422 -1429 -1436 -1443	-1379 -1386 -1393 -1408 -1408 -1415 -1422 -1430 -1437 -1444	-1379 -1387 -1394 -1401 -1409 -1416 -1423 -1430 -1438 -1445	-1380 -1387 -1395 -1409 -1417 -1424 -1431 -1438 -1446	-1381 -1388 -1395 -1403 -1410 -1417 -1425 -1432 -1439 -1446	-1382 -1389 -1396 -1403 -1411 -1418 -1425 -1433 -1440 -1447	-1382 -1390 -1397 -1404 -1411 -1419 -1426 -1433 -1441 -1448	-1383 -1398 -1398 -1405 -1412 -1419 -1427 -1434 -1441	-1384 -1391 -1398 -1406 -1413 -1420 -1427 -1425 -1442 -1449

P, mb	0	1	2	3	4	5	6	7	8	9
1200 • 1210 • 1220 • 1230 • 1240 • 1250 • 1260 • 1280 • 1290 • 12	-1450 -1522 -1594 -1666 -1736 -1877 -1877 -1946 -2016	-1457 -1530 -1601 -1673 -1744 -1814 -1884 -1953 -2022 -2091	-1464 -1537 -1608 -1680 -1751 -1821 -1891 -1960 -2029 -2098	-1472 -1544 -1616 -1687 -1758 -1828 -1898 -1967 -2036 -2105	-1479 -1551 -1623 -1694 -1765 -1835 -1905 -1974 -2043 -2112	-1486 -1558 -1630 -1701 -1772 -1842 -1981 -2050 -2118	-1493 -1565 -1637 -1708 -1779 -1849 -1918 -2057 -2125	-1501 -1573 -1644 -1715 -1786 -1856 -1926 -1995 -2064 -2132	-1508 -1580 -1651 -1722 -1793 -1863 -1933 -2002 -2071 -2139	-1515 -1587 -1658 -1729 -1800 -1870 -1940 -2009 -2077 -2146
1300 • 1310 • 1320 • 1330 • 1340 • 1350 • 1360 • 1370 • 1380 • 1390 • 1390 •	-2150 -2288 -2351 -2421 -2451 -2513 -2619 -2684	-2159 -2274 -22361 -23628 -2494 -25625 -2690 -2755	-2166 -2234 -2301 -2368 -2435 -2501 -2566 -2632 -2697 -2761	-2173 -2241 -2375 -2375 -2441 -2573 -2573 -2638 -2768	-2180 -2247 -2315 -2381 -2448 -2514 -2579 -2645 -2710 -2774	-2186 -22521 -22321 -2388 -2454 -2586 -2586 -26516 -2716	-2193 -2261 -2328 -2395 -2461 -2527 -2527 -2528 -2723 -2787	-2200 -2268 -2235 -24468 -2534 -2534 -2594 -2594 -2793	-2207 -2274 -2274 -2408 -2474 -2540 -2606 -2671 -2735 -2800	-2214 -2281 -2348 -2415 -2547 -2547 -2677 -2742 -2806
1400 • 1410 • 1420 • 1430 • 1440 • 1450 • 1460 • 1470 • 1480 • 1490 •	-2813 -2876 -2976 -3003 -3066 -3190 -3252 -3314 -3375	-2819 -2883 -2946 -3009 -3072 -3135 -3197 -3258 -3320 -3381	-2825 -2889 -2953 -3016 -3078 -3141 -3265 -3326 -3387	-2832 -2896 -2959 -3022 -3085 -3147 -3209 -3271 -3332 -3393	-2838 -2902 -2965 -3028 -3091 -3153 -3217 -3277 -3338 -3399	-2845 -29072 -39072 -30357 -31959 -3221 -3284 -33445	-2851 -2915 -2915 -3041 -3103 -3166 -3289 -3289 -3350 -3411	-2857 -2921 -2984 -3047 -3110 -3172 -3234 -3295 -3356 -3417	-2864 -2927 -29291 -3053 -3116 -3116 -3240 -3301 -3363 -3423	-2870 -2934 -2997 -3060 -3122 -3184 -3246 -3308 -3369 -3429
1500. 1510. 1520. 1530. 1550. 1560. 1560. 1580. 1590.	-3435 -3496 -3556 -3616 -3675 -3793 -3793 -3850 -3910 -3968	-3442 -3502 -3502 -3622 -3681 -3740 -3799 -3858 -3916 -3974	-3448 -3508 -3568 -3628 -3687 -3746 -3863 -3863 -3922 -3980	-3454 -3514 -3574 -3634 -36752 -3811 -3869 -3927	-3460 -3520 -3580 -3640 -3699 -3758 -3817 -3875 -3933 -3991	-3466 -3526 -3586 -36465 -3705 -3764 -3823 -3881 -3939 -3997	-3472 -3532 -3532 -3652 -3711 -3770 -3828 -3887 -3945 -4003	-3478 -3538 -3598 -3598 -3657 -3717 -3776 -3894 -3893 -3951 -4008	-3484 -3544 -3663 -3723 -3722 -3840 -3898 -3956 -4014	-3490 -3550 -3610 -3669 -3729 -3787 -3846 -3904 -3962 -4020
1600 • 1610 • 1620 • 1630 • 1640 • 1650 • 1660 • 1680 • 1690 • 16	-4026 -4083 -4197 -4197 -4253 -4366 -4421 -4477 -4532	-4031 -4089 -4146 -4203 -4259 -4371 -4371 -4427 -4482 -4537	-4037 -4094 -4151 -4208 -4265 -4321 -4377 -4438 -4543	-4043 -4100 -4157 -4214 -4270 -4326 -4382 -4438 -4493 -4548	-4049 -41063 -42169 -42762 -4388 -4443 -4443 -4554	-4054 -41169 -412828 -42828 -43933 -44394 -4559	-4060 -41174 -4231 -4287 -4383 -4399 -4510 -4565	-4066 -4123 -41236 -4293 -4293 -4405 -4465 -4515 -4570	-4072 -4129 -4186 -4298 -4298 -4354 -4410 -4466 -4576	-4077 -4134 -4191 -4248 -4304 -4360 -4416 -4471 -4526 -4581
1700. 1710. 1720. 1730. 1740. 1750. 1760. 1770.	-4587 -4641 -4696 -4750 -4857 -4911 -4964	-4592 -4647 -4701 -4755 -4869 -4863 -4916 -4969	-4598 -4652 -4706 -4761 -4814 -4868 -4921 -4974	-4603 -4658 -4712 -4766 -4820 -4827 -4927 -4980	-4609 -4663 -4717 -4771 -4825 -4879 -4932 -4985	-4614 -4668 -4723 -4777 -4884 -4937 -4990	-4619 -4674 -4728 -4782 -4836 -4889 -4942 -4995	-4625 -4679 -4734 -4787 -4841 -4895 -4948	-4630 -4685 -4739 -4793 -4846 -4900 -4953	-4636 -4690 -4744 -4798 -4852 -4905 -4958

Table VIII GEOPOTENTIAL ALTITUDE IN METERS AS A FUNCTION OF PRESSURE IN MILLIMETERS OF MERCURY

GEOPOTENTIAL ALTITUDE IN METERS as a function of PRESSURE IN MILLIMETERS OF MERCURY

P, mm Hg	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
6.50 6.60 6.70 6.80 6.90	31909 31808 31709 31612	32001 31899 31798 31699 31602	31990 31889 31788 31690 31592	31980 31878 31778 31680 31583	31970 31868 31768 31670 31573	31960 31858 31758 31660 31563	31949 31848 31749 31650 31554	31939 31838 31739 31641 31544	31929 31828 31729 31631 31535	31919 31818 31719 31621 31525
7.00 7.10 7.20 7.30 7.40 7.50 7.60 7.70 7.80 7.90	31515 31421 31327 31235 31145 31055 30967 30980 30794 30709	31506 31411 31318 31226 31136 31046 30958 30871 30785 30701	31496 31402 31309 31217 31127 31037 30949 30863 30777 30692	31487 31393 31300 31208 31118 31029 30941 30858 30684	31477 31383 31290 31199 31109 31020 30932 30845 30760 30675	31468 31374 31281 31190 31100 31011 30923 30837 30751 30667	31458 31365 31272 31181 31091 31092 30915 30828 30743 30659	31 449 31 355 31 263 31 172 31 082 30993 30906 30820 30734 30650	31440 31346 31254 31163 31073 30984 30897 30811 30726 30642	31430 31337 31245 31154 31064 30976 30888 30802 30718 30634
8.10 8.10 8.30 8.30 8.50 8.50 8.60 8.70 8.70	30625 30543 30543 30461 30301 30301 30222 30145 30068 29992 29917	30617 30535 30453 30373 30293 30215 30137 30060 29985 29910	30609 30526 30445 30365 30285 30287 30129 30053 29977 29902	30600 30518 30518 30437 30357 30277 30199 30122 30045 29970 29895	30592 30510 30429 30349 30269 30191 30114 30038 29962 29888	30584 30502 30421 30341 30262 30183 30106 30030 29955 29880	30576 30494 30413 30333 30254 30176 30099 30022 29947 29873	30567 30486 30405 30325 30246 30168 30091 30015 29940 29865	30559 30477 30397 30317 30317 30160 30083 30087 29932 29858	30551 30469 30389 30329 30230 30153 30076 30000 29925 29851
9.00 9.10 9.20 9.30 9.50 9.50 9.60 9.70 9.80 9.90	29843 29770 29698 29626 29555 29485 29416 29347 29279 29212	29836 29763 29690 29619 29548 29478 29409 29373 29206	29828 29755 29683 29612 29541 29471 29471 29403 29266 29199	29821 29748 29676 29605 29534 29464 29395 29327 29259 29192	29814 29741 297669 29597 29527 29457 29388 29320 29252 29186	29806 29734 29662 29520 29520 29450 29313 29313 29246 29179	29799 29726 29654 29583 29513 29443 29374 29306 29239 29172	29792 29719 29647 29506 29506 29436 29368 29300 29232 29166	29785 29712 29640 29569 29499 29430 294361 29293 29226 29159	29777 29705 29633 29563 29492 29492 29423 29354 29286 29219 29152

P, mm Hg	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
10.00 10.10 10.20 10.30 10.40 10.50 10.60 10.70 10.80 10.90	29146 29080 29015 28950 28887 28823 28761 28699 28638 28577	29139 29073 29008 28944 28880 28817 28755 28653 28632 28571	29133 29062 29092 28938 28811 28749 28685 28685 28565	29126 29060 28995 28931 28805 28742 28619 28559	29119 29054 28989 28925 28861 28798 28736 28613 28553	29113 29047 28983 28915 28792 28792 28668 28667 28547	29106 29041 28976 28912 28849 28786 28764 28662 286601 28541	29100 29034 28970 289906 28842 28780 28755 28595 28595	29093 29028 28963 28899 28836 28773 28711 286550 28589 28529	29087 29021 28957 28830 28767 28767 28644 28583 28523
11.00 11.10 11.20 11.30 11.40 11.50 11.60 11.60 11.70	28517 28457 28398 28339 28281 28224 28167 28110 28054 27999	285151 285324 285324 285276 286161 28161 281049 27993	28505 28445 28386 28320 28212 28156 28043 27988	28499 28439 28382 28382 28264 28207 28150 28038 27982	28493 28433 28374 28376 28258 28201 28144 28088 28032 27977	28487 28427 283619 283610 28253 28195 28195 28195 28027 28971	28481 28422 28305 28305 28347 28133 28133 28021 27966	28475 284157 28299 28241 28127 28016 27960	28469 28410 283593 28235 28178 28178 281066 28010 27955	28463 28404 283457 28230 28173 28173 28160 28004 27949
12.00 12.10 12.20 12.30 12.40 12.50 12.60 12.60 12.80	27944 27889 27835 27782 27728 27676 27623 27572 27520 27469	27938 27884 278830 27776 277723 27670 27618 275618 275615 27464	27933 27879 27825 27782 27718 27765 27665 27613 27510 27510	27928 27873 27819 27713 27660 277556 27556 27505 275454	27922 27868 27814 27760 27707 27655 27653 27551 27500 27449	27917 27862 27868 27755 27702 27650 27546 27546 27494 27444	27911 27857 27803 27750 27697 27644 27592 27541 27489 27439	27906 27851 27798 27794 27691 27639 27535 27535 27484 27433	27900 27846 27792 27739 27686 27634 27582 27530 27479 27428	27895 27841 27787 27734 27681 27629 27577 27525 27474 27423
13.00 13.10 13.20 13.30 13.40 13.50 13.60 13.70 13.80 13.90	27418 27368 27318 27269 27220 27171 27123 27075 27027 26980	27413 27363 27313 27264 27215 271166 27118 27072 26975	27408 27358 27359 27259 27210 27161 27113 27018 26970	27403 27353 27303 27254 27205 27156 27108 27060 27013 26966	27398 27348 27298 27249 27200 27152 27103 27056 27008 26961	27393 27343 27293 27294 27195 27147 27099 27051 27003 26956	27388 27338 27288 27239 27190 27142 27094 27094 26999 26952	27383 27333 27284 27234 27186 27137 27081 26994 26994	27378 27328 27329 27229 27181 27132 27036 26989 26942	27373 27323 27274 27225 27176 27127 27079 27032 26984 26937
14.00 14.10 14.20 14.30 14.40 14.50 14.60 14.60 14.70 14.80 14.90	26933 26886 26840 26794 26749 26703 26658 26614 26569 26525	26928 26882 26835 26794 26699 26659 26565 26565	26923 26877 26831 26785 26739 26694 26649 266605 26561 26517	26919 26872 26826 26735 26690 26645 26640 26556 26512	26914 26868 26822 26776 26730 26685 26640 26596 26552 26508	26909 26863 26817 26771 26726 26681 26636 26592 26547 26504	26905 26858 26812 26721 26721 26676 266387 26583 26543 26499	26900 26854 26808 26717 26672 26682 26583 26539 26495	26896 26849 26803 26758 26712 26667 26578 26578 26534 26490	26891 26845 26799 26708 26663 26663 26574 26530 26486
15.00 15.10 15.20 15.30 15.50 15.60 15.60 15.70 15.80	26482 26438 26395 26395 26310 26268 26226 26184 26143 26101	26477 26434 26391 26348 26306 26263 26222 26180 26138 26097	26473 26430 26387 26344 26391 26259 26257 26176 26176 26134 26093	26469 26425 26382 26397 26255 26255 26213 26172 26170 26089	26464 26421 26378 26335 26293 26291 26209 26167 26167 26185	26460 26417 26374 26331 26289 26247 26205 26163 26122 26081	26456 26412 26370 26325 26285 26242 26201 26159 26118 26077	26451 26408 26365 26323 26280 26238 26197 26155 26114 26073	26447 26404 26361 26318 26276 26234 26192 26151 26110 26069	26443 26400 26357 26314 26272 26230 26188 26147 26106 26065
16.00 16.10 16.20 16.30 16.40 16.50 16.60 16.60 16.80	26061 26020 25980 25940 25940 25860 25821 25782 25743 25743	26057 26016 25976 25936 25896 25817 25779 25779 25700	26052 26012 25972 25932 25892 25852 25813 25774 25735 25696	26048 26008 25968 25928 25888 25848 25809 25770 25731 25693	26044 26004 25964 25924 25884 25884 25805 25766 25727 25689	26040 26000 25960 25980 25880 25880 25862 25762 25762	26036 25996 25916 25916 25876 25836 25758 25758 257681	26032 25992 25992 25912 25872 25833 25754 25716 2577	26028 25988 25948 25948 25868 25868 25789 25751 25712 25712	26024 25984 25904 25904 25864 25825 25786 25747 25708 25670
17.00 17.10 17.20 17.30 17.40 17.50 17.60 17.60 17.70 17.80 17.90	25666 25628 25590 25552 25514 25477 25440 25403 25367 25330	25662 25524 25586 25548 25511 255436 25436 25436 25363 25327	25658 25620 25584 25584 25507 25470 25433 25359 25359 25323	25654 25616 25578 25578 25503 25466 25429 25396 25319	25650 25612 255537 255500 25462 25462 25389 25352 25316	25647 25669 255533 255496 255459 255485 255348 255312	25643 25605 25567 255492 254455 254458 25345 253345 253345 25339	25639 256601 255526 255488 25451 25414 25378 25341 25305	25635 255597 255522 255485 25448 25411 25338 25338 25301	25631 255593 255518 255481 25444 25444 25377 25374 25378
18.00 18.10 18.20 18.30 18.40 18.50 18.60 18.60 18.90	25294 25258 25222 25187 25151 25116 25081 25046 25012 24977	25290 25255 25219 25148 25148 25148 25043 25043 25008 24974	25287 25251 25215 25180 25144 25109 25079 25079 25005 24970	25283 25247 25212 25176 25141 25106 25071 25036 25001 24967	25280 25244 25208 25137 25137 25102 25067 25033 24998 24964	25276 25240 25240 25169 25134 25099 25029 25029 24995 24960	25272 25237 25265 25130 25195 25095 25096 24991 24957	25269 25233 25162 25162 25127 25092 25052 25052 24988 24953	25265 25229 25194 25158 25158 25168 25083 25019 24984 24950	25262 25266 25155 25155 25085 25085 25015 24981 24947
19.00 19.10 19.20 19.30 19.40 19.50 19.60 19.70 19.80 19.90	24943 24909 24875 24842 24808 24775 24775 24709 24676 24643	24940 24906 24872 24838 24805 24771 24778 24705 24672 24640	24936 24902 24868 24865 24801 24768 24769 24702 24669 24637	24933 24899 24865 24831 24798 24765 24765 24769 24666 24633	24929 24896 24862 24862 24795 24761 24728 24695 24663 24630	24926 24898 24858 24825 24791 24758 24752 24659 24657	2498551 24488551 2448852 2447552 2447752 244656 244654	24985 24985 248818 248781 247518 247683 24653 24652	24916 24888 24848 24845 24781 24748 24748 24748 247650 24650 24617	24912 24849 24841 24811 24778 24745 24779 24646 24614

P, mm Hg	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
20.00 211.00 221.00 221.00 221.00 221.00 221.00 221.00 221.00	24611 24295 23994 23707 23433 23170 22918 22676 22442 22217	24578 24264 23965 23679 23406 23144 22893 22893 22419 22195	24546 24234 23936 23651 23380 23119 22869 22397 22173	24514 24203 23907 23624 233553 23093 22844 22605 22374 22151	24482 24173 23878 23596 23327 23068 22820 22581 22351 22130	24451 24143 23849 23300 23300 23043 22756 22558 22329 22108	24419 24113 23821 23541 23274 23018 22771 22534 22306 22086	24388 24083 23792 237914 23248 22993 22747 22511 22284 22065	24357 24053 23764 237887 23222 22968 22723 22488 222488 22262 22043	24326 24024 23735 23196 22196 22943 22699 22465 22239 22022
30.0 31.0 33.0 33.0 34.0 36.0 37.0 38.0	22000 21790 21588 21391 21201 21016 20836 20682 20492 20327	21979 21770 217568 21372 21182 20998 20819 206476 20311	21958 21749 21548 21552 21163 20980 20801 20628 20459 20295	21936 21729 21528 21333 21145 20961 20784 20611 20442 20279	21915 21708 21308 21314 21126 20743 20766 20526 20426 20426	21894 21688 21488 21295 211025 20749 20577 20409 20247	21873 21668 21469 21276 21089 20908 20731 20393 20230	21853 21648 21449 21257 21071 20890 20714 20543 20376 20214	21832 21628 21430 21438 21052 20872 20872 20526 20360 20199	21811 21607 21410 21219 21034 20854 20509 20344 20183
40.0 41.0 42.0 43.0 45.0 45.0 46.0 47.0 49.0	20167 20010 19857 19708 19562 19420 19280 19144 19010 18880	20151 19995 19842 19693 19548 19406 19267 19130 18997 18867	20135 19979 19827 19679 19533 19392 19392 19217 18984 18854	20119 19964 19812 19664 19519 19378 19239 19104 18971	20104 19948 19949 19649 195064 19225 19090 18958 18828	20088 19933 19935 19635 19635 19491 19350 19212 19077 18945 18815	20072 19918 19967 19620 19476 19336 19198 19063 18932 18932	20057 19903 19752 19606 19462 19322 19185 19050 18919	20041 19887 19738 19738 19591 19448 19306 19171 19037 18906 18777	20026 19872 19777 19577 19434 19294 19157 19024 18893 18764
50.0 51.0 53.0 53.0 55.0 55.0 57.0 59.0	18752 18626 18503 18582 18263 18147 18033 17921 17810 17702	18739 18614 18491 18370 18252 18136 18022 17909 17799 17691	18726 18601 18478 18358 18240 18124 18010 17898 17788	18714 18589 18466 18346 18228 18113 17999 17887 17778 17670	18701 18576 18454 18334 18217 18101 17988 17876 17767	18688 18544 18442 18322 18205 18090 17976 17865 17756	18676 18552 18430 18311 18193 18078 17965 17854 17745 17638	18663 18540 18418 18299 18182 18067 17954 17843 17734 17627	18651 18527 18406 18487 18170 18056 17943 17832 17723 17616	18638 18515 18394 18275 18159 18044 17932 17821 17713 17606
60.0 61.0 62.0 63.0 64.0 66.0 66.0 67.0 69.0	17595 17490 17387 17286 17186 17088 16991 16896 16802	17585 17480 17377 17276 17176 17178 16981 16886 16792 16700	17574 17470 17367 17266 17166 17068 16972 16877 16783	17564 17459 17357 17256 17156 17059 16962 16867 16774 16681	17553 17449 17347 17246 17147 17049 16953 16858 16764	17543 17439 17436 17236 17236 17137 17039 16943 16848 16755 16663	17532 17428 17326 17226 17127 17029 16934 16839 16746 16654	17522 17418 17416 17216 17117 17020 16924 16830 16737	17511 17408 17306 17306 17107 17010 16914 16820 16727 16636	17501 17398 17296 17196 17097 17001 16905 16811 16718 16627
70.0 71.0 72.0 73.0 74.0 75.0 76.0 77.0 78.0	16618 16528 16439 164352 16265 16180 16096 16013 15851	16609 16519 16519 16343 16257 16172 16088 16005 15923 15843	16600 16510 16422 16334 16248 16163 16080 15997 15915	16591 16501 16413 16326 16240 16155 16071 15989 15907 15827	16582 16492 16404 16317 16231 16146 16063 15989 15819	16573 16483 16395 16308 16238 16138 16055 15972 15891	16564 16474 16386 16300 16214 16130 16046 15988 15803	16555 16466 16378 16291 16206 16121 16038 15956 15875 15795	16546 16457 16369 16283 16197 16113 16030 15948 15867 15787	16537 16448 16360 16274 16189 16105 16022 15940 15859 15779
80.0 81.0 82.0 83.0 84.0 85.0 86.0 87.0 88.0	15771 15692 15692 15537 15462 15386 15312 15239 15167 15095	15763 15684 156807 15530 15454 15379 15305 15232 15159 15088	15755 15677 15599 15599 15446 15372 15298 15224 15152	15747 15669 15591 15591 15439 15364 15290 15217 15145	15739 15661 15583 15507 15431 15357 15283 15210 15138	15731 15653 15653 15499 15424 15324 15276 15203 15131 15059	15724 15645 15568 15492 15416 153268 151268 15123 15123	15716 15638 15560 15484 15409 15334 15261 15188 15116	15708 15630 15553 15477 15401 15327 15254 15181 15109 15038	15700 15622 15545 15469 15394 15320 15246 15174 15102 15031
90.0 91.0 92.0 93.0 94.0 95.0 97.0 99.0	15024 14954 14885 14816 14748 14615 14615 14549 14484	15017 14947 14809 14742 14608 14608 14542 14413	15010 14940 14871 14802 14735 14668 14602 14536 14471 14407	15003 14933 14864 14796 14728 14661 14595 14529 14465 14400	14996 14926 14857 14789 14721 14654 14588 14523 14458	14989 14919 14919 14782 14762 147648 14582 14582 14512 14318	14982 14912 14843 14775 14708 14641 14575 14575 14545 14381	14975 149037 14769 14761 14569 14569 14503 14439	14968 14898 14830 14762 14695 14628 14562 14567 14432 14369	14961 14892 14823 14755 14688 14621 14556 14490 14426 14362
100.0 101.0 102.0 103.0 104.0 105.0 106.0 107.0 108.0	14356 14293 14230 14168 14107 14046 13986 13927 13868 13809	14350 14286 14224 14162 14101 14040 13980 13921 13862 13804	14343 14280 14218 14156 14055 14034 13974 13915 13856 13798	14337 14274 14212 14150 14089 14028 13968 13968 13969 13850 13792	14331 14268 14268 14144 14083 14082 13962 13962 13903 13844	14324 14261 14199 14138 14077 14016 13956 13839 13780	14318 14255 14193 14132 14071 14010 13951 13891 13833 13775	14312 14249 14187 14125 14065 14004 13945 13885 138827 13769	14305 14243 14181 14119 14059 13998 13939 13830 13821 13763	14299 14237 14175 14113 14052 13992 13933 13874 13815 13757
110.0 111.0 112.0 113.0 114.0 115.0 116.0 117.0 118.0	13751 13694 13637 13581 13525 13470 13415 13360 13306 13253	13746 13688 13632 13575 13519 13464 13409 13355 13301 13247	13740 13683 13626 13570 13514 13459 13494 13295 13242	1 3734 1 3677 1 3620 1 3564 1 3508 1 3453 1 3398 1 3344 1 3290 1 3237	13728 13671 13615 13558 13503 13448 13393 13399 13285 13231	13723 13666 13609 13553 13497 13442 13387 13279 13226	13717 13660 13603 13547 13492 13437 13382 13328 13274 13221	13711 13654 13598 13542 13486 13431 13376 13322 13269 13216	13705 13649 13592 13536 13481 13426 13371 13317 13263 13210	13700 13643 13586 13530 13475 13420 13366 13312 13258 13205

TABLE VIII - Continued

P, mm Hg	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
120.0 121.0 123.0 123.0 123.0 124.0 126.0 126.0 127.0	13200 13147 13095 13043 12992 12941 12890 12840 12790 12741	13194 13142 13038 13038 12987 12936 12885 12835 12785 12736	13189 13137 13084 13083 12981 12981 12830 12830 12780 12731	13184 13131 13079 13028 12976 12926 12825 12825 12776 12726	13179 13126 13024 13022 12971 12921 12870 12820 12771 12721	13173 13121 13069 13017 12966 12915 12865 12815 12766 12716	13168 13116 13064 130612 12961 12910 12810 12810 12761	13163 13110 13059 13007 12956 12905 12855 12805 12756 12707	13158 13105 13053 13002 12951 12900 12850 12800 12751	13152 13100 13048 12997 12946 12895 12845 12795 12746 12697
130.0 131.0 132.0 133.0 134.0 135.0 136.0 136.0 138.0	12692 12643 12547 12547 12500 12453 12406 12313 12406	12687 12639 12543 12543 12445 12445 12401 12309 12363	12682 12634 12538 12538 12490 12443 12397 12350 12304 12258	12677 12629 12581 12533 12486 12439 12392 12346 12340 12254	1 2673 1 2624 1 2576 1 2528 1 2481 1 2484 1 2387 1 2285 1 2249	12668 12619 12571 12524 12476 12479 12383 12390 12245	12663 12614 12566 12519 12475 12475 12378 12378 12386 12240	12658 12610 12562 12514 12467 12467 12373 12327 123281 12336	12653 126557 12557 12559 12462 12415 12369 12277 12231	12648 12600 12552 12505 12457 1241 12318 12272
140.0 141.0 142.0 143.0 144.0 145.0 146.0 146.0 147.0 148.0	12222 12177 12132 12088 12043 12040 11956 11913 11870 11827	12218 12172 12128 12083 12089 11995 11952 11965 11865 11823	12213 12168 12123 12079 12035 11991 11947 11904 11861 11818	12209 12163 12119 12074 12030 11986 11943 11900 11857 11814	12204 12159 12114 12070 12026 11982 11989 11895 11853 11810	12199 12154 12110 12065 12021 11978 11934 11891 11848 11806	12195 12150 12105 12061 12017 11973 11930 11887 11844 11801	12190 12146 12101 12057 12013 11969 11926 11883 11840 11797	12186 12141 12097 12052 12008 11965 11921 11878 11878 11879	12181 12137 12092 12048 12004 11960 11917 11874 11831 11789
150.0 151.0 153.0 153.0 154.0 155.0 156.0 157.0 158.0	11785 11742 11701 11659 11618 11577 11536 11495 11495	11780 11738 11696 11655 11614 11573 11532 11491 11451 11411	11776 11734 11692 11651 11669 11568 11528 11487 11447	11772 11730 11688 11647 11605 11564 11524 11483 11443	11768 11726 11684 11682 11601 11560 11520 11479 11439 11399	11763 11721 11680 11638 11597 11556 11516 11475 11435 11395	11759 11717 11676 11634 11593 11552 11551 11471 11471 11431	11755 11713 11671 11630 11589 11548 11507 11467 11467 11427	11751 11709 11667 11626 11585 11544 11503 11463 11423	11747 11705 11663 11622 11581 11540 11499 11459 11419
160.0 161.0 162.0 163.0 164.0 165.0 166.0 167.0 168.0 169.0	11375 11336 11296 11257 11219 11180 11142 111066 11028	11371 11332 11293 11254 11215 11176 11138 11100 11062 11024	11367 11328 11289 11250 11211 11172 11134 11096 11058 11021	11363 11324 11285 11246 11207 11169 11130 11092 11055 11017	11359 11320 11281 11242 11203 11165 11127 11089 11051 11013	11355 11316 11277 11238 11199 11161 11123 11085 11047 11010	11352 11312 11273 11234 11196 11157 11119 11081 11043 11006	11348 11308 11269 11230 11192 11153 11115 11077 11040 11002	11344 11304 11265 11226 11188 11149 11111 11073 11036 10998	11340 11300 11261 11223 11184 11146 11108 11070 11032 10995
170.0 171.0 172.0 173.0 174.0 175.0 176.0 176.0 177.0 177.0	10991 10954 10954 10880 10843 10806 10770 10734 10698 10662	10987 10950 10913 108176 10839 10803 10766 10730 10694 10658	10983 10946 10909 10872 10836 10799 10727 10727 10691	10980 10942 10945 10869 10832 10796 10759 10723 10687 10651	10976 10939 10902 10865 10828 10792 10756 10719 10683 10648	10972 10935 10898 10861 10825 10788 10752 10752 10680 10644	10968 10931 10894 10858 10821 10785 10748 10712 10676 10641	10965 10928 10891 10854 10817 10781 10745 10745 10673 10637	10961 10924 10887 10850 10814 10777 10741 10705 10669	10957 10920 10883 10847 10810 10774 10737 10701 10666 10630
180.0 181.0 182.0 183.0 184.0 185.0 186.0 187.0 188.0	10626 10591 10555 10520 10485 104450 10415 10346 10312	10623 10587 10552 10517 10482 10447 10412 10377 10343 10309	10619 10584 10588 10513 10478 10443 10443 10438 10374 10339	10616 10580 10585 10510 10475 10440 10405 10370 10336 10302	10612 1057 10541 10506 10471 10436 10401 10367 10333 10298	10608 10538 10538 10503 10468 10463 10398 10363 10329	10605 10569 10534 10499 10464 10429 10395 10360 10326 10291	10601 10566 10531 10496 10461 10426 10357 10357 10322	10598 10562 10562 10527 10492 10457 10422 10388 10353 10319	10594 10559 10559 10489 10454 10419 10384 10350 10315
190.0 191.0 192.0 193.0 193.0 195.0 196.0 197.0 198.0	10278 10244 10210 10176 10143 10109 10076 10043 10009	10274 10240 10206 10173 10139 10139 10072 10072 10006 9973	10271 10237 10203 10169 10136 10102 10069 10036 10003	10268 10234 10200 10166 10132 10099 10066 10033 10000	10264 10230 10196 10163 10129 10096 10062 10062 10029 9996	10261 10227 10193 10159 10156 10092 10059 10059 10026 9993	10257 10223 10190 10156 10152 10089 10053 9990 9957	10254 10220 10186 10153 10119 10086 10052 10019 9986 9954	10251 10217 10183 10149 10116 10082 10049 10016 9983 9950	10247 10213 10179 10146 10112 10079 10046 10013 9980 9947
200.0 201.0 2003.0 2003.0 2004.0 2006.0 2006.0 2007.0 2009.0	9944 9911 9879 9846 9814 9782 9750 9718 9686 9655	9941 9908 9875 9813 9811 9779 9747 9715 9683 9651	9937 9905 9872 9840 9808 9775 9743 9712 9680 9648	9934 9901 9869 9837 9804 9772 9740 9708 9677	9931 9898 9866 9833 9801 9769 9737 9705 9674 9642	9927 9895 9862 9830 9798 9766 9734 9702 9670	9924 9892 9859 9857 9795 9763 9731 9699 9667 9636	9921 9888 9854 98791 9759 9759 9758 9696	9918 9885 9853 9820 9820 9756 9756 9724 9693 9661 9629	9914 9882 98417 9785 9753 9753 97689 9658 9626
210.0 211.0 212.0 211.0 211.0 211.0 211.0 211.0 211.0 211.0 211.0 211.0 211.0 211.0 211.0 211.0	9623 9592 9569 9529 9498 9467 9437 94375 9375	9620 9589 95526 95526 94495 94433 9472 9342	9617 9585 9584 9523 9492 9461 9460 9369 9339	9614 9582 9551 9520 9489 9458 9427 9397 9366 9336	9611 9579 9548 9517 9486 9455 9424 9394 9363 9333	9607 9576 9514 9514 9483 9452 9452 9391 9360 9330	9604 9573 9542 9511 9480 9449 9418 9387 9387 9387	9601 9570 9539 9508 9477 9446 9415 9384 9354 9324	9598 9567 9536 9504 9474 9443 9412 9381 9351 9321	9595 9564 9531 9501 9470 94409 9378 9348 9318

P, mm Hg	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
221.0 2223.0 2223.0 2223.0 2224.0 2226.0 2227.0 2228.0 2228.0	9315 9284 9254 9224 9164 9165 91076 9046	9312 9281 9251 9221 9162 9162 9102 9073 9043	9308 9278 9248 9218 9188 9159 9129 9070 9041	9305 9275 9245 9215 9185 9156 9126 9067 9038	9302 9272 9242 9212 9182 9153 9123 9093 9064 9035	9299 9269 9239 9279 9179 9150 9090 9090 9061 9032	9296 9266 9236 9206 9176 9147 9117 9088 9058 9029	9293 9263 9233 9203 9173 9144 9114 9085 9055 9026	9290 9260 9230 9200 9170 9141 9111 9082 9052 9023	9287 9257 9227 9197 9167 9138 9108 9079 9049
230 · 0 231 · 0 232 · 0 233 · 0 235 · 0 235 · 0 236 · 0 237 · 0 237 · 0 239 · 0	9017 8988 8959 8930 8972 8872 8844 8815 8758	9014 8985 8956 8957 8898 8861 8812 8755	9011 8982 8953 8954 8865 8867 8838 88781 8753	9008 8979 8950 8921 8892 8864 8835 8807 8778 8750	9005 8976 8947 8918 8890 8861 8832 8804 8775 8747	9003 8973 8944 8916 8887 8858 8829 8801 8772 8744	9000 8971 8971 8913 8884 8827 8778 8778 8741	8997 8968 8939 8910 8881 8852 8824 8795 8767 8738	8994 8965 8936 8937 8878 8849 8821 8792 8764 8736	8991 8962 8933 8904 8875 8847 8818 8769 8761 8733
241.0 242.0 242.0 244.0 244.0 244.0 245.0 245.0 245.0	8730 8702 8674 8646 8618 8590 8562 8535 8537 8480	8727 8699 8643 8615 8587 8560 8532 8504	8724 8696 8668 8640 8585 8557 8529 8502 8474	8722 8693 8665 8637 8582 8584 8526 8499 8472	8719 8691 8663 8635 8607 8579 8551 8524 8496 8469	8716 8688 8660 8632 8576 8576 8549 8549 8493 8466	8713 8685 86857 8629 8601 8573 8546 8518 8491 8463	8710 8682 86526 86526 8571 8513 8515 8461	8707 8679 8651 86523 8596 8568 8513 8485 8485	8705 8677 86421 8593 8565 8536 8510 8483 8455
250 • 0 251 • 0 252 • 0 253 • 0 253 • 0 256 • 0 258 • 0 259 • 0	8452 8425 8398 8371 8344 8317 8290 8263 8263 8210	8450 8422 8368 8341 8341 8281 8281 8261 8208	8447 8420 8393 8366 8339 8312 8285 8251 8251 8205	8444 8417 8390 8363 8366 8309 8285 8255 8259 8202	8442 8414 8387 8360 8333 8306 8279 8256 8200	8439 8412 8384 8357 8330 8304 8277 8250 8223 8197	8436 8409 8382 8355 8328 8301 8274 8247 8241 8194	8433 8406 8379 83525 8398 8271 8245 8218 8192	8431 8403 8376 8349 8349 8269 8269 8245 8215 8189	8428 8401 83747 8320 8293 8266 8239 8213 8186
260.0 261.0 262.0 263.0 264.0 265.0 265.0 267.0 267.0 268.0	8184 8157 8131 8105 8079 8052 8026 8001 7975 7949	8181 8155 8122 8076 8024 7998 7946	8178 8152 8152 8199 8073 8073 8021 79970 7944	8176 8149 8123 8097 - 8071 8045 8019 7993 7967 7941	8173 8147 8120 8094 8068 8042 8016 79964 7939	8170 8144 8118 8092 8065 8039 8013 7988 7962 7936	8168 81415 8089 80637 80611 7985 7933	8165 8139 8113 8086 8060 8034 8008 7982 7957 7931	8163 8136 8110 8084 8052 8006 7980 7954 7928	8160 8134 8107 8081 8055 8029 8003 7977 7951 7926
270.0 271.0 272.0 273.0 273.0 273.0 275.0 276.0 277.0 278.0 279.0	7923 7898 7872 7847 7841 7796 7771 7745 7740 7695	7921 7895 7869 7844 7819 7793 7768 7743 7743 7743	7918 7892 7867 7841 7816 7791 7766 7740 7715 7690	7916 7890 7864 7839 7814 7788 7763 7738 7713 7688	7913 7887 7862 7836 7811 7786 7761 7735 7710 7685	7910 7885 7859 7834 7809 7783 7758 7733 7708 7683	7908 7882 7857 7831 7806 7781 7756 7730 7705 7680	7905 7880 7854 7829 7803 7778 7778 7753 7753 7703 7678	7903 7877 7852 7826 7826 7801 7776 7751 7725 7700 7675	7900 7875 7849 7824 7798 7773 7748 7723 7698 7673
280 • 0 281 • 0 282 • 0 283 • 0 284 • 0 285 • 0 287 • 0 289 • 0	7670 7646 7621 7596 7571 7547 7522 7498 7473 7449	7668 7643 7618 75194 7569 7544 7520 7495 7471 7447	7665 7641 7616 7591 7566 7542 7517 7493 7494	7663 7638 7613 7589 7564 7539 7515 7490 7466 7442	7660 7636 7611 7586 7561 7537 7512 7488 7464 7439	7658 7633 7608 7584 7559 7534 7510 7486 7461 7437	7655 7631 7631 7581 7557 7552 7508 7483 7483 7435	7653 7628 7603 7579 7554 7530 7505 7481 7456 7432	7651 7626 7601 7576 7552 7527 7503 7478 7454 7430	7648 7623 7598 7594 7549 7525 7500 7476 7452 7427
290.0 291.0 293.0 293.0 293.0 294.0 296.0 297.0 297.0	7425 7401 7377 7352 7329 7305 7281 7257 7233 7210	7422 7398 7374 7350 7356 7302 7278 7255 7251 7207	7420 7396 7372 7348 7324 7300 7276 7252 7252 7205	7418 7393 7369 7345 7321 7297 7274 7250 726 7203	7415 7391 7367 7343 7319 7295 7271 7247 7224 7200	7413 7389 7365 7340 7317 7293 7269 7245 7221 7198	7410 7386 7362 7338 7314 7290 7266 7243 7219 7195	7408 7384 7360 7336 7312 7288 7264 7240 7217 7193	7405 7381 7357 7333 7309 7286 7262 7238 7214 7191	7403 7379 7355 7331 7307 7283 7259 7236 7212 7188
300.0 301.0 302.0 303.0 304.0 305.0 306.0 307.0	7186 7162 7139 7116 7092 7069 7046 7023 7000 6977	7184 7160 7137 7113 7090 7067 7043 7020 6997 6974	7181 7158 7134 7111 7088 7064 7041 7018 6995 6972	71 79 71 55 71 32 71 09 7085 7062 7039 7016 6993 6970	7177 7153 7130 7106 7083 7060 7037 7013 6990 6967	7174 7151 7127 7104 7081 7057 7034 7011 6988 6965	7172 7148 7125 7102 7078 7075 7032 7009 6986 6963	7170 7146 7123 7099 7076 7053 7030 7006 6983 6960	7167 7144 7120 7097 7074 7050 7027 7004 6981 6958	7165 7141 7118 70195 7071 7048 7025 7002 6979 6956
310.0 312.0 312.0 313.0 314.0 315.0 316.0 317.0	6954 6931 6908 6885 6862 6840 6817 6794 6772 6749	6951 6928 6906 6883 68837 6837 6815 6770 6747	6949 6926 6903 6880 6858 6835 6812 6790 6767	6947 6924 6901 6878 6855 6833 6810 6768 6765	6944 6921 6899 6876 6853 6831 6808 6765 6763 6741	6942 6919 6896 6874 6851 6828 6806 6783 6761 6738	6940 6917 6894 6871 6849 6826 6803 6781 6758 6736	6938 6915 6892 6869 6846 6824 6801 6779 6756	6935 6912 6890 6867 6844 6821 6799 6776 6754	6933 6910 6887 6865 6842 6819 6797 6774 6752 6729

P, mm Hg	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
320.0 321.0 322.0 323.0 325.0 325.0 325.0 326.0 328.0 328.0	6727 6705 6682 6660 6638 6616 6594 6572 6550 6528	6725 6703 6680 6658 6636 6614 6592 6548 6526	6723 6700 6678 6656 6654 6612 6590 6568 6546	6720 6698 6676 6651 6609 6587 6565 6543 6522	6718 6696 6674 6651 6629 6607 6585 6563 6541 6519	6716 6694 6671 66427 6605 6583 6539 6517	6714 6691 6669 6647 6625 6603 6581 6581 6537 6515	6711 6689 6667 66423 6601 6579 65535 6513	6709 6687 6665 6643 6643 6598 6576 6574 6532 6511	6707 6685 6662 6640 6618 6596 6574 6552 6530
330.0 331.0 332.0 333.0 335.0 335.0 336.0 337.0 338.0 339.0	6506 6484 6463 6441 6419 6376 6355 6354 6312	6504 6482 6461 6439 6417 6374 6374 6351 6310	6502 6480 6457 6415 6394 6372 6351 6329 6308	6500 6478 6456 6435 6413 6391 6370 6348 6327 6306	6498 6476 64754 6432 6411 6388 6346 6325 6304	6495 6474 6452 6430 64387 6387 6364 6323 6301	6493 6471 6450 6450 6407 6385 6364 6321 6299	6491 6469 6448 6426 6404 6383 6361 6340 6319 6297	6489 6467 6445 6426 6381 6359 6316 6295	6487 6465 6443 6422 6400 6379 6357 6336 6314
340.0 341.0 342.0 342.0 345.0 345.0 346.0 346.0 348.0	6291 6270 62248 62227 6206 6165 6164 6142 6101	6289 6267 62245 6225 6204 6162 6162 61420 6099	6287 6265 6243 6202 6181 6160 6139 6118 6097	6284 6263 6242 6221 6200 6179 6158 6137 6116 6095	6282 6261 6240 6219 6198 6197 6156 6114 6093	6280 6259 6238 6217 6196 6175 6154 6133 6112 6091	6278 6257 6235 6215 6193 6172 6151 6130 6110 6089	6276 6255 6234 6232 6191 6170 6149 6128 6108 6087	6274 6253 6231 6210 6189 6168 6147 6126 6105 6085	6272 6250 6229 6208 6187 6166 6145 6103 6083
350.0 351.0 352.0 353.0 354.0 355.0 355.0 356.0 357.0 358.0	6080 6060 6039 6018 5998 5997 5957 5957 5916 5895	6078 6058 6037 6016 5996 5975 5954 5914 5914 5893	6076 6056 6035 6014 5973 5952 5932 5912 5891	6074 6053 6033 6012 5991 5971 5950 5930 5910 5889	6072 6051 6031 6989 5969 5948 5928 5928 5928	6070 6049 6029 60987 5967 59965 59905	6068 6047 6027 60965 5965 5944 5923 5883	6066 6045 6024 6983 5963 5942 5942 5901 5881	5064 6043 6022 5981 5961 5940 5920 5879	6062 6041 6020 6000 5979 5959 5918 5918 5897 5877
360.0 361.0 362.0 363.0 364.0 365.0 366.0 367.0 368.0 369.0	5875 5855 5834 5814 5794 5774 57754 57714 57694	5873 5853 5832 5812 5792 5772 5752 5732 5712 5692	5871 5851 5830 5810 5790 5770 5750 5730 5710 5690	5869 5848 5828 5808 5768 5768 5748 5728 5708 5688	5867 5846 5826 5806 5786 5746 5746 5706 5686	5865 5844 5824 58784 5764 5744 5724 5704 5684	5863 58422 58422 58782 57762 57722 5702	5861 5840 5820 5800 5780 5760 5740 5720 5680	5859 5838 5818 5798 5778 5758 5738 5718 5698 5678	5857 5836 5816 5776 5776 5736 5736 5716 5696
370.0 371.0 372.0 373.0 374.0 375.0 376.0 377.0 378.0 378.0	5674 56614 56614 555555 55555 55516 55497	5672 5652 5632 556193 55573 55534 55514 5495	5650 5650 5630 5610 5571 55571 55512 55493	5668 5648 5628 56089 55569 55569 55510 55491	5666 56666 5668 55658 555648 55508 5558 5548	5664 56644 56624 55685 55565 55565 55506 55587	5662 56622 56623 55683 55564 55525 5548 5548	5640 5640 5680 5581 5561 55542 55583 5483	5658 5638 5618 5579 5559 5540 5501 5481	5656 5636 5616 5597 5557 5553 5518 55499 5479
380 • 0 381 • 0 383 • 0 383 • 0 384 • 0 386 • 0 386 • 0 387 • 0 389 • 0	5477 5458 54419 54400 53361 53362 53423 5324	5475 5456 5437 5398 5379 5359 5340 5302	5473 5454 5435 54196 5377 5358 5319 5300	5471 5452 5433 5413 5375 5375 5356 5317 5298	5459 5451 54411 5431 53354 53354 53315 53396	5468 5448 5429 5439 5371 53371 53332 5313	5466 5446 5427 5407 5388 5369 5351 5351 5292	5464 5444 5425 5406 5386 5367 5329 5329 5290	5462 5442 5423 5404 5365 53467 5328 5328	5460 5440 5422 5382 5363 53345 5325 5326 5287
390.0 391.0 393.0 393.0 395.0 396.0 396.0 398.0 398.0	5285 5266 52228 52209 5171 51134 5115	5283 5264 5245 5246 5207 5169 5150 5113	5281 5262 5243 5225 5186 5167 5130 5111	5279 5260 5241 5223 5184 51667 5128 5109	5277 52239 52230 52201 5184 5184 5186 5186 5186	5275 5256 5237 52199 51181 51163 51124 51106	5273 5254 5253 52198 5179 5164 5122 5104	5271 5252 52233 52196 5177 51139 51121 5102	5270 5251 5231 52194 5175 5137 5119 5100	5268 5249 52231 52192 5173 5155 5117 5098
400.0 401.0 402.0 403.0 404.0 405.0 406.0 407.0 408.0 409.0	5078 5078 5079 5040 5042 5023 4985 4968 4948	5094 5076 5057 5039 5002 4983 4965 4946 4928	5074 5074 5055 5037 5001 5000 4981 4963 4944 4926	5091 5072 5053 5016 4998 4979 4961 4943 4924	5089 5070 50533 5014 4996 4979 4959 4941 4922	5087 5068 5050 50013 4994 4976 4957 4939	5085 5066 50049 50011 4992 4975 4937 4919	5083 5065 5046 5009 4990 4954 4935 4917	5081 5063 5044 5007 4989 4970 4933 4915	5079 50061 50024 50025 4987 4950 4932 4913
410.0 412.0 412.0 413.0 415.0 415.0 415.0 417.0 418.0	4911 4893 4875 4857 4839 4820 4784 4766 4748	4910 4891 4875 4855 4817 4819 4702 4764 4746	4908 4890 4871 4853 4835 4817 4799 4781 4763 4745	4906 4888 4869 4851 4833 4815 4797 4779 4761 4743	4904 4886 4868 4849 4813 4795 4777 4759 4741	4902 4884 4866 4848 4829 4811 4775 4777 4777	4900 4882 4864 4846 4810 4773 4775 4775	4899 4880 4862 4844 4826 4790 4772 4754 4736	4897 4879 4860 4842 4824 4806 4788 4770 4752 4734	4895 4877 4859 4849 4822 4804 4766 4750 4750

P, mm Hg	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
420.0 421.0 422.0 4223.0 4223.0 4225.0 425.0 425.0 425.0 425.0	4730 4712 4697 4659 4659 4623 4606 4588 4570	4729 4711 4693 4675 4657 4639 4622 4586 4586	4727 4709 4691 46557 46557 4620 4608 4567	4725 4707 4689 4671 4653 4636 4618 4683 4585	4723 4705 4687 4670 4652 4634 4616 4598 4581 4563	4721 4703 4686 4650 4632 4614 4577 4579	4720 4702 4684 4666 4648 4630 4613 4595 4577 4560	4718 4700 4682 4664 4646 4629 4611 4593 4576 4558	4716 4698 46682 466457 4609 4577 4556	4714 4696 4678 46643 4625 4607 4590 4572 4554
430.0 431.0 433.0 433.0 435.0 435.0 435.0 437.0 438.0	45557 455170 455825 444488 444303 443136	4551 4533 4518 4498 4486 4446 4421 4394	4532 4514 45196 44792 44447 44427 44427 4492	4547 4530 4597 44475 44476 44425 4425 4420 4420 4420	4546 4520 45193 44758 4441 4426 4389	4526 4526 4591 4456 4439 4439 4424 4387	45087 45087 4447 4447 44425 44420 44408	4505 4508 4508 44703 4435 4435 4436 4430 4438	4508 4508 4469 4469 4434 4439 438	4537 4519 4508 4484 4467 4449 4432 4415 4397 4380
440.0 441.0 442.0 444.0 445.0 445.0 445.0 447.0 449.0	4378 4361 4327 4309 4275 4275 4258 4224	4377 4359 4345 4325 4308 4273 4259 4259 4222	4375 4358 4323 4326 4289 4272 4258 4238 4221	4373 4356 4339 4321 4304 4287 4270 4253 4236 4219	4371 4354 4327 4320 4303 4265 4268 4251 4234 4217	4370 4355 4318 4301 4284 4267 4253 4216	43513 43513 43169 4298 4265 4248 4241 4214	4366 4332 4315 4297 4263 4263 4249 4212	4347 4330 4313 42979 4261 4247 4210	4363 4345 4321 4321 4294 4277 4263 4226 4209
451-0 451-0 453-0 454-0 455-0 455-0 455-0 458-0	4207 4190 4173 4156 4139 4106 4089 4072 4056	4205 4188 4171 4155 4138 4121 4104 4087 4071 4054	4204 4187 4173 4173 4136 4119 4102 4086 4089	4202 4185 4168 4151 4134 4118 4101 4084 4067 4051	4200 4183 4166 4150 4133 4116 4099 4086 4049	4199 4182 4165 4148 4131 4114 4097 4084 4064	4197 4180 4163 4146 4129 4129 4096 4079 4062 4046	4195 4178 4161 4144 4128 4111 4094 4077 4061 4044	4193 4177 4160 4143 4126 4192 4079 4079 4042	4192 4175 4158 4124 4107 4091 4074 4057 4041
460.0 461.0 462.0 463.0 465.0 465.0 467.0 467.0 469.0	4039 4022 4006 3989 3972 3956 3939 3923 3923 3890	4037 4021 4004 3987 3971 3954 3938 3921 3905 3888	4036 4019 4002 3986 3969 3953 3936 3920 3987	4034 4017 4001 3984 3968 3951 3934 3918 3902 3885	4032 4016 3999 3982 3966 3933 3916 3910 3884	4031 4014 39981 3964 3948 3931 3931 3898 3882	4029 4012 3979 3979 39646 3930 3913 3897 3880	4027 4011 3994 3977 3961 3944 3928 3911 3895 3879	4026 4009 3992 3976 3959 3926 3910 3893 3877	4024 4007 39974 3958 3941 3928 3992 3875
470.0 471.0 472.0 473.0 473.0 475.0 475.0 476.0 477.0 477.0	3874 3857 3841 3825 3808 3792 3776 3760 3764 3727	3872 3856 3839 3823 3807 3791 3774 3758 3742 3726	3870 3854 3854 3821 3805 3789 3773 3757 3754	3869 3852 3836 3820 3804 3787 3775 3775 3739 3723	3867 3851 3854 3818 3802 3786 3769 3753 3753 3753	3866 3849 3833 3817 3800 3784 3768 3752 3735 3719	3864 3843 3815 3815 3799 3766 3750 3734 3718	3862 3846 3830 3813 3797 3781 3765 3748 3732 3716	3861 3848 3812 3775 3776 3763 3747 3731	3859 3843 3826 3810 3778 3778 3761 3745 3729 3713
480.0 482.0 482.0 483.0 485.0 485.0 485.0 485.0 485.0	3711 3695 3679 3673 3647 3631 3615 3599 3583	3710 3694 3678 3662 3646 3630 3614 3598 3582 3566	3708 3692 3660 3644 3622 3596 3580 3564	3706 3690 3674 3658 3642 3626 3610 3594 3579 3563	3705 3689 3657 3657 3641 3625 3609 3593 3597 3561	3703 3687 3671 3655 3639 3623 3607 3591 3575 3560	3702 3686 3670 3654 3638 3622 3606 3590 3574 3558	3700 3684 3668 3652 3636 3620 3604 3588 3572 3556	3698 3682 3686 3650 3634 3602 3587 3571 3555	3697 3681 3665 3649 3633 3617 3601 3585 3569 3553
490.0 491.0 492.0 493.0 494.0 495.0 495.0 496.0 499.0	3552 3536 3524 3504 3489 3473 3457 3445 3426 3410	3550 3534 3518 3508 35487 3471 3456 3446 3424 3409	3548 3533 3511 3581 3485 3454 3454 3458 3477	3547 3531 3515 3500 3484 3468 3452 3437 3421 3406	3545 3530 3514 3518 3498 34867 3451 3435 3430 34404	3544 3528 3512 3496 3485 3465 3449 3418 3402	3542 3526 3511 3495 3479 3468 3432 3416 3401	3541 3525 3509 3478 3462 3446 3415 3399	3539 3523 3527 3492 3476 3445 3445 3423 3423	3537 3522 3502 3590 3474 3459 3443 3427 3412 3396
5000 500 500 500 500 500 500 500 500 50	3395 3379 3363 3348 3332 3317 3302 3286 3271 3255	3393 3377 3362 3346 3331 3315 3300 3285 3269 3254	3391 3376 3360 3349 3314 3299 3288 3252	3390 3374 3359 3343 3312 3297 3282 3266 3251	3388 3373 3357 3342 3326 3311 3295 3280 3265 3249	3387 3371 3356 3345 3325 3309 3278 3263 3248	3385 3370 3354 3339 3323 3308 3292 3277 3262 3246	3384 3368 33537 3322 3306 3291 3275 3260 3245	3382 3367 3351 3356 3320 3305 3289 3274 3258 3243	3381 3365 3354 3319 3303 3288 3272 3257 3242
510.0 511.0 512.0 513.0 514.0 515.0 515.0 517.0 517.0	3240 3225 3209 3194 3179 3164 3149 3143 3118 3103	3239 3223 3208 3193 3177 3162 3147 3132 3117 3102	3237 3222 3206 3191 3176 3161 3130 3115 3100	3235 3220 3205 3190 3174 3159 3144 3129 3114 3099	3234 3219 3203 3168 3173 3158 3142 3127 3112 3097	3232 3217 3202 3187 3171 3156 3141 3126 3111	3231 3216 3200 3185 3170 3155 3139 3124 3109	3229 3214 31199 3184 3168 3153 3138 3123 3108 3093	3228 3213 3197 3182 3167 3152 3136 3121 3106 3091	3226 3211 3196 3180 3165 3155 3135 3120 3105

P, mm Hg	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
521.00 521.00 5223.00 5223.00 5225.00 5225.00 5227.00 5228.00	3088 3073 3058 3048 3013 2998 29983 2968 2953	3086 3071 3056 3026 3011 2996 2987 2952	3085 3075 3055 3045 3045 3010 2998 2998 2965 2950	3083 3068 3053 3038 3023 3008 2978 2978 2964 2949	3082 3067 3052 3032 3032 3007 2997 2997 2962 2947	3065 3065 3050 30035 30095 29975 29961	3079 3064 3049 3019 3004 2989 2974 2959	3077 3062 3047 3032 3017 3002 2987 2972 2958 2943	3076 3061 3046 3031 3016 3001 2986 2971 2956 2941	3074 3059 3044 3024 2999 2989 2989 2955 2940
530.0 531.0 532.0 533.0 534.0 535.0 537.0 537.0 537.0	2938 29929 28994 28879 28879 2849 2849 28805	29227 29927 28999 28763 2848 2848 28319 2804	2935 29906 28991 28761 2847 28317 28317 2802	2934 2919 2908 2889 2875 2860 2845 2830 2816 2801	29173 29988 288738 288738 28844 28844 28814 28810	2931 2916 2901 2886 2852 2857 28427 28427 2813 2798	2929 2914 2985 2885 2855 2845 2846 2811 28797	2913 2998 2898 28869 28854 2882 28810 2810	2926 29127 28982 2867 2852 2833 2808 2794	2925 29105 28896 28851 28832 28807 28807 28807
540.0 541.0 542.0 543.0 544.0 544.0 544.0 544.0 544.0 544.0	2791 2776 2762 2762 2717 2718 2703 2689 2674 2660	2789 2775 2760 2746 2731 2716 2702 2687 2673 2658	2788 2773 2759 2754 2729 2715 2700 2686 2671 2657	2786 2772 2752 2754 2758 2714 2695 2670 2656	2785 2770 2754 2754 2727 2712 2698 2669 2654	2783 2769 2754 2754 2725 2711 2698 2667 2653	2782 2767 27538 2724 2709 2698 2686 2666	2781 2766 2751 2751 2722 2708 2693 2679 2664 2650	2779 2764 2750 2735 2721 2706 2692 2677 2663 2648	2778 2763 2748 2739 2705 2696 2661 2647
550.0 551.0 5552.0 5553.0 5556.0 5556.0 5558.0 5558.0	2645 2631 2617 2602 2588 2574 25545 25545 2531 2517	2644 2630 2615 26587 25572 2554 2554 25529 2515	2643 26628 26149 25585 25571 25542 255428 2514	2641 2627 26128 25584 2569 2554 2554 2512	2640 2625 2611 2592 2568 2539 2539 2525 2511	2638 2661951 255867 2555329 2555329	2637 2622 2608 2579 2565 25537 2552 2508	2635 2607 2607 2578 2564 2535 2531 2507	2634 2605 2605 2577 2562 2534 2519 2505	2633 2618 26089 25575 25543 255318 2504
560.0 561.0 562.0 563.0 564.0 565.0 5667.0 568.0	2502 2488 2476 2466 2432 2413 2413 2389 2375	2501 2487 2473 2454 2430 2416 2416 2388 2374	2495 24471 24473 24429 24101 24386 2372	2498 2484 2470 2451 2427 2412 2399 2385 2371	2497 2488 2468 2450 2426 24198 23184 2370	2481 248673 244539 24420 243388 243388	2494 2480 24651 2437 24439 24095 2381 2367	2478 2478 2464 2463 2443 2443 2443 2433 2433 2336	2491 2477 2468 24434 2440 2492 2378 2364	2490 2475 2461 24433 2419 2439 23377 2363
570.0 571.0 572.0 573.0 574.0 575.0 575.0 577.0 577.0	2361 2347 2333 2315 2305 2291 2278 2250 2250 2236	2360 2346 2332 2318 2390 2276 2268 2248 2235	2358 2344 2330 2317 23103 2289 2275 2261 2247 2233	2357 2343 2329 2315 2287 2278 22760 2246 2232	2356 2342 2328 2310 2286 22758 22584 2230	2354 2340 2312 2318 2284 22757 22543 2229	2353 23325 23325 2339 2329 22289 22289 22248 22248	2351 2337 23320 23296 2288 2268 2268 22260 2240 226	2350 2336 23328 23294 22280 22280 22265 22239 22225	2349 2335 2321 2329 22279 22279 22251 22237 2224
580.0 581.0 582.0 583.0 585.0 585.0 586.0 588.0	2222 2208 2195 2187 2153 2140 2126 2112 2099	2221 2207 2193 2176 2152 2152 2152 2115 2111 2097	2219 2206 2192 2178 2164 2151 2137 2110 2096	2218 2204 2190 2177 2163 2149 2135 2135 2108 2094	2217 2203 2189 2175 2162 2148 2134 2130 2107 2093	2215 2201 2188 2174 2166 21146 21139 21105 2092	2214 2200 2186 2173 2159 2145 2131 2118 2104 2090	2212 2199 2185 2157 2144 2130 2116 2103 2089	2211 2197 2184 2156 2142 2129 2115 2101 2088	2210 2196 2186 2185 2155 2141 2124 2100 2086
590.0 591.0 592.0 593.0 594.0 595.0 596.0 597.0 597.0	2085 2071 2075 2044 2031 2001 1997 1997	2084 20756 20756 20043 20029 20029 19875 1962	2082 2069 2065 2041 2028 2014 2001 1987 1974	2081 2067 2054 2054 2027 2013 1998 1986 1973 1959	2080 20662 20039 20035 2015 20998 1985 1985 1985	2078 2065 2065 2051 2024 2010 1993 1970 1956	2077 2063 20536 20536 2022 2009 1995 1988 1968	2075 2062 2062 2048 2021 2008 1994 1981 1967	2074 2060 2047 2033 2020 2006 1993 1979 1966 1952	2073 2059 2046 2032 2018 2005 1991 1978 1964 1951
600.0 601.0 603.0 603.0 604.0 605.0 605.0 607.0 609.0	1950 1936 1923 1909 1896 1883 1865 1843 1843	1948 1935 1921 1905 1888 1865 1865 1841 1828	1947 1934 1920 1907 1893 1880 1867 1853 1840 1827	1946 1932 1919 1902 1879 1865 1839 1825	1944 1931 1917 1904 1891 1877 1864 1851 1837	1943 1930 1916 1903 1889 1876 18649 1836 1823	19428 1928 1915 1908 1875 1864 1835 1821	1940 1927 1913 1900 1887 1873 1867 1833 1820	1939 1925 19129 1885 1872 1855 1855 1832	1938 1924 1911 1884 1871 1854 1831 1817
610.0 611.0 612.0 613.0 613.0 615.0 616.0 616.0 619.0	1816 1803 1790 1776 1763 1750 1737 1724 1711	1815 1802 1788 1775 1762 1749 1736 1722 1709	1814 1800 1787 1774 1761 1747 1734 1721 1708 1695	1812 1799 1786 1772 1759 1746 1733 1720 1707	1811 1798 1784 1771 1758 1745 1732 1719 1705	1810 1796 1783 1770 1757 1743 1730 1717 1704	1808 1795 1782 1769 1755 1742 1729 1729 1703 1690	1807 1794 1780 1767 1754 1741 1728 1715 1701	1806 1792 1776 1766 1753 1740 1726 1713 1700 1687	1804 1791 1776 1765 1765 1751 1738 1725 1712 1699

P, mm Hg	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
620.0 621.0 623.0 623.0 624.0 625.0 625.0 626.0 627.0	1684 1671 1658 1645 1642 1619 1606 1593 1580 1567	1683 1670 1657 1644 1631 1618 1605 1592 1579	1682 1669 16543 1630 1617 1604 1591 1578	1680 1667 1654 1654 16628 1615 1602 1589 1576 1563	1679 1666 1653 16540 1627 1614 1601 1508 1575	1678 1665 1652 1639 1626 1613 1600 1587 1574	1677 1664 1650 1637 1624 1611 1598 1595 1572	1675 1662 1649 1636 1623 1610 1597 1584 1571 1558	1674 1661 1648 1635 1622 1609 1596 1583 1570 1557	1673 1660 1647 1634 1620 1608 1582 1582 1569
630.0 631.0 633.0 633.0 635.0 635.0 636.0 637.0 638.0 639.0	1554 1542 1529 1516 1503 1490 1477 1462 1439	1553 1547 1514 1509 1476 1463 1450 1438	15529 15326 15326 1513 15087 1475 14649 1436	15535 15325 15325 15129 14986 1473 14648 1435	1549 15323 1511 1495 1472 1472 1456 1434	1552964 1552964 14471 144543 1443	1547 1531 1508 1495 1488 1467 1444 1431	15507 15507 1498 1468 1453 1430	1518 1518 1505 1493 1467 1467 1441 1429	1543 1530 1517 1514 1491 1478 1466 1463 1440 1427
540.0 641.0 642.0 643.0 644.0 645.0 646.0 647.0 648.0 649.0	1426 1413 1401 1388 1375 1362 1350 1337 1325	1425 1412 1399 1387 1374 1374 1349 1333 1311	1423 1411 1398 1385 1373 1360 1347 1335 1322 1309	1422 1409 1397 1384 1371 1359 1346 1333 1321 1308	1421 1408 1395 1383 1370 1357 1345 1332 1319	1420 1407 1394 1381 1366 1343 1331 1318 1306	1418 1406 1393 1380 1368 1355 1342 1330 1317	1417 1404 1392 1379 1364 1354 1341 1328 1316 1303	1416 1490 1378 1365 1365 1340 1327 1314 1302	1415 1402 1389 1376 1364 1351 1338 1326 1313 1301
650.0 651.0 652.0 653.0 654.0 656.0 656.0 656.0 658.0	1299 1287 1274 1262 1249 1234 1211 1199 1187	1298 12853 12668 12485 12233 12198 1198	1297 1284 1272 1259 1247 1247 1221 1209 1197 1184	1296 1283 1270 1258 1245 1233 1220 1208 1195 1183	1294 1282 1269 1257 1244 1219 1219 12194 1182	1293 12868 1255 12430 1218 1205 1105	1292 1279 1267 1254 12542 1229 12104 1192 1179	1290 1278 1265 1253 1240 1228 1213 1190 1178	1289 1277 12764 1252 1239 1226 1214 1202 1189 1177	1288 1275 1263 1238 1225 1225 1213 1200 1188 1175
660.0 661.0 662.0 663.0 664.0 665.0 667.0 667.0 669.0	1174 1162 1149 1137 1124 1112 1100 1087 1063	1173 1160 1148 1136 1123 1111 1098 1086 1086	1172 1159 1147 1134 1122 1110 1097 1085 1060	1170 1158 1145 1133 1121 1108 1096 1094 1071	1169 1157 1144 1132 1120 1107 1095 1082 1070	1168 1155 1143 1131 1118 1106 1094 1089 1057	1167 1154 1142 11429 1117 1105 1098 1068 1055	1165 1153 1141 1128 1116 1103 1091 10066 1054	1164 1152 1139 1127 11102 1090 1078 1065 1053	1163 1150 1138 1126 1113 1101 1089 1076 1076 1052
670.0 671.0 672.0 673.0 674.0 675.0 675.0 676.0 677.0	1050 1038 1026 1014 1001 989 977 965 953 953	1049 1037 1022 1012 1000 988 976 964 951 939	1048 1036 1023 1011 999 987 975 962 950 938	1047 1034 1022 1010 998 986 973 961 949	1046 1033 1029 1997 987 984 972 960 948 936	1044 1032 1028 1028 995 983 971 959 947	1043 1031 1019 1006 994 982 970 957 945 933	1042 1030 1017 1005 993 981 968 956 944 932	1041 1028 1016 1004 9929 967 955 943	1039 1027 1015 1003 990 978 966 954 942 929
680.0 681.0 682.0 683.0 684.0 685.0 686.0 687.0 688.0	928 9164 992 880 868 856 844 8320	927 9153 991 879 8679 854 842 838	926 914 902 889 877 865 853 841 827	925 912 900 888 876 864 852 848 816	923 911 899 887 875 861 839 827	922 910 898 886 874 862 850 838 814	921 909 897 885 873 860 848 8324 812	920 908 896 883 871 859 847 835 823	919 906 894 882 870 858 834 834 810	917 905 893 8869 857 8453 821 809
690.0 691.0 693.0 693.0 694.0 695.0 695.0 697.0 698.0	808 796 784 772 760 748 736 724 712 710	806 794 782 770 758 747 735 723 711 699	805 793 789 769 757 745 743 722 710 698	804 792 780 768 756 744 732 720 708 697	803 791 779 767 755 743 719 707 695	802 790 778 766 754 7742 710 710 694	800 788 776 764 752 741 729 717 705 693	799 787 775 763 751 739 727 716 704 692	798 786 774 762 758 738 726 714 702 691	797 785 773 761 749 737 725 713 701 689
700.0 701.0 702.0 703.0 704.0 705.0 705.0 705.0 707.0	658 676 665 653 641 629 617 606 594 582	687 675 663 6540 6428 616 6093 581	686 674 662 6539 627 615 603 591 580	685 673 661 649 637 626 614 602 590 579	683 6672 660 648 636 624 613 609 577	682 670 659 645 623 611 608 576	681 669 657 644 622 610 598 587 575	680 668 656 644 633 621 609 597 586 574	679 667 655 643 620 608 596 584 573	678 666 654 6430 618 607 595 583
710.0 711.0 712.0 713.0 713.0 715.0 716.0 716.0 719.0	570 559 547 533 512 500 489 477 465	559 557 546 532 511 497 476 464	568 5545 5453 5509 498 4753	567 555 5432 5320 508 495 4473 462	5542 5542 5431 519 507 494 472 461	564 553 5419 518 506 483 471 459	563 55408 516 5053 482 470 458	5620 55397 515 515 515 4897 4697	561 549 538 514 5031 479 468 456	560 548 536 525 511 490 478 466 455

TABLE VIII - Continued

P, mm Hg	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
720.0 721.0 722.0 723.0 723.0 725.0 725.0 726.0 726.0 728.0	454 442 431 419 407 396 384 373 361 350	453 441 429 418 406 395 383 370 349	451 440 428 417 405 394 382 371 359 348	450 439 427 415 404 392 381 369 358 346	449 437 426 414 403 391 386 357 345	448 436 425 413 402 390 377 356 344	447 435 424 412 400 389 377 366 354	446 434 422 4119 388 3765 353 342	444 433 421 410 398 387 375 364 352 341	4432 420 409 397 386 3742 351 340
730.0 731.0 732.0 733.0 734.0 735.0 736.0 737.0 737.0	338 33275 3104 31093 2270 2270 2587 2276	337 3326 3103 291 2869 2546 235	336 325 312 3990 279 2666 255 233	335 323 312 308 378 278 2255 2244 232	334 322 311 299 288 277 2654 243 231	333 321 310 298 287 276 264 253 241 230	33209 3209 3209 3209 3209 3209 3209 3209	330 319 307 285 273 2250 239 228	329 318 306 295 283 272 261 249 238 227	328 317 305 294 282 271 2648 237 225
740.0 741.0 742.0 743.0 743.0 745.0 746.0 746.0 747.0 748.0 749.0	224 2132 1900 179 168 157 1454 123	223 2101 189 1787 155 1443 122	222 211 199 188 177 166 154 143 132	221 210 198 187 176 164 153 142 131	220 208 197 186 175 163 152 141 130	219 207 195 185 162 151 140 128	218 206 195 184 172 161 159 127 116	216 205 198 182 171 160 149 137 126	215 204 193 181 170 159 1436 125	2143 1980 1869 158 1435 124 113
750 • 0 751 • 0 752 • 0 753 • 0 754 • 0 756 • 0 757 • 0 759 • 0	112 100 89 78 67 56 44 33 22	110 99 88 77 66 55 43 32 21	1 09 98 87 76 53 42 31 20 9	108 97 86 75 63 52 41 30 19	1 07 965 85 74 62 51 40 29 18	106 95 84 72 61 50 39 28 17 6	105 94 82 71 60 49 38 27 16	104 93 81 70 59 48 37 26 14	103 91 80 69 58 47 36 24 13	101 90 79 68 57 46 323 12
760.0 761.0 762.0 763.0 764.0 765.0 765.0 767.0 768.0 769.0	-0 -11 -22 -33 -44 -55 -66 -77 -88 -99	-12 -123 -234 -456 -677 -790 -101	-23 -134 -355 -478 -478 -699 -80	-3 -14 -25 -37 -48 -59 -70 -81 -92 -103	-4 -16 -27 -38 -49 -60 -71 -82 -93 -104	-6 -17 -28 -39 -50 -61 -72 -83 -94 -105	-7 -18 -29 -40 -51 -62 -73 -84 -95 -106	-8 -19 -30 -41 -52 -63 -74 -85 -96	-9 -20 -31 -42 -53 -64 -75 -86 -97 -108	-10 -21 -32 -43 -54 -65 -767 -98 -109
770.0 771.0 772.0 773.0 774.0 775.0 775.0 776.0 777.0 777.0	-110 -121 -132 -143 -154 -165 -176 -187 -187 -209	-111 -122 -133 -144 -155 -166 -177 -188 -199	-113 -124 -135 -145 -156 -178 -189 -200	-114 -125 -136 -147 -158 -168 -179 -190 -201 -212	-115 -126 -137 -148 -159 -170 -180 -191 -202 -213	-116 -127 -138 -149 -160 -171 -182 -192 -203 -214	-117 -128 -139 -150 -161 -172 -183 -194 -204	-118 -129 -140 -151 -162 -173 -184 -195 -205	-119 -130 -141 -152 -163 -174 -185 -196 -207 -217	-120 -131 -142 -153 -164 -175 -186 -197 -208 -219
780.0 781.0 782.0 783.0 784.0 785.0 786.0 787.0 787.0	-220 -230 -241 -252 -263 -274 -285 -295 -306 -317	-221 -2232 -2252 -2254 -2254 -2287 -2397 -318	-222 -2334 -2454 -2656 -2877 -298 -308 -319	-223 -234 -245 -255 -266 -277 -288 -299 -309	-224 -235 -246 -2457 -267 -2678 -289 -300 -311	-225 -236 -247 -258 -268 -279 -290 -301 -312 -322	-226 -2378 -2459 -2270 -280 -291 -3013 -323	-227 -238 -249 -260 -271 -281 -292 -314 -325	-228 -239 -250 -261 -272 -282 -293 -304 -315 -326	-229 -240 -251 -262 -273 -284 -295 -305 -327
790.0 791.0 792.0 793.0 794.0 795.0 796.0 797.0 798.0 799.0	-328 -338 -349 -360 -371 -381 -392 -403 -413 -424	-329 -340 -350 -361 -372 -382 -393 -4015 -425	-330 -341 -351 -362 -373 -384 -394 -405 -416 -426	-331 -342 -352 -363 -374 -385 -395 -406 -417 -427	-332 -343 -354 -364 -375 -386 -396 -407 -418 -428	-333 -344 -355 -365 -376 -387 -397 -408 -419 -429	-334 -345 -356 -366 -377 -388 -398 -409 -420 -430	-335 -346 -357 -367 -378 -389 -400 -410 -421 -432	-336 -347 -358 -369 -379 -390 -401 -411 -422 -433	-337 -346 -359 -370 -380 -391 -402 -412 -423 -434
800.00 8001.00 8003.00 8003.00 8005.00 8005.00 8007.00 8009.00	-435 -445 -456 -457 -478 -498 -509 -530	-436 -446 -457 -468 -478 -489 -499 -510 -521 -531	-437 -448 -458 -469 -479 -501 -512 -532	-438 -449 -459 -470 -480 -491 -502 -512 -523 -533	-439 -450 -460 -471 -481 -493 -5124 -534	-440 -451 -461 -472 -483 -493 -504 -514 -525 -535	-441 -452 -462 -473 -484 -495 -515 -526 -536	-442 -453 -463 -475 -495 -506 -516 -527 -538	-443 -454 -465 -475 -476 -496 -507 -517 -528 -539	-444 -455 -466 -477 -497 -519 -529 -540
810.0 811.0 812.0 814.0 814.0 815.0 816.0 817.0 817.0	-541 -551 -562 -572 -583 -593 -604 -625 -635	-542 -552 -563 -573 -584 -594 -6015 -626 -636	-543 -553 -564 -575 -595 -606 -616 -627 -637	-544 -554 -565 -575 -586 -596 -607 -617 -628 -638	-545 -555 -566 -577 -597 -608 -629 -639	-546 -556 -567 -578 -598 -609 -619 -630 -640	-547 -558 -568 -579 -589 -600 -610 -620 -631 -641	-548 -559 -569 -580 -590 -601 -612 -632 -642	-549 -560 -570 -581 -591 -602 -612 -623 -633 -643	-550 -561 -5782 -592 -603 -613 -624 -634

252

P, mm Hg	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
82234.00 82234.00 82236.00 82274.00 82276.00 82278.00 82278.00 82289.00	-646 -656 -666 -677 -687 -698 -708 -718 -719 -739	-647 -657 -667 -678 -688 -699 -709 -719 -730 -740	-648 -658 -668 -679 -689 -700 -710 -720 -731 -741	-649 -659 -670 -680 -690 -701 -711 -721 -732 -742	-650 -660 -671 -681 -691 -702 -712 -723 -733 -743	-651 -661 -672 -682 -692 -703 -713 -724 -734	-652 -662 -673 -683 -693 -704 -714 -725 -735	-653 -663 -674 -684 -694 -705 -715 -726 -736	-654 -664 -675 -685 -696 -706 -716 -727 -737	-655 -665 -676 -686 -697 -707 -717 -728 -738 -748
B30.0 B31.0 B32.0 B33.0 B35.0 B35.0 B37.0 B37.0	-749 -760 -770 -780 -791 -801 -811 -821 -832 -842	-750 -761 -771 -781 -792 -802 -812 -823 -833 -843	-751 -762 -772 -782 -793 -803 -813 -824 -834	-753 -763 -773 -783 -794 -804 -814 -825 -835 -845	-754 -764 -774 -785 -805 -815 -826 -836 -846	-755 -765 -775 -786 -796 -816 -827 -837 -847	-756 -766 -7767 -787 -797 -807 -817 -818 -838 -848	-757 -767 -777 -788 -798 -808 -818 -829 -839	-758 -768 -778 -789 -799 -809 -819 -830 -840 -850	-759 -769 -779 -790 -810 -810 -820 -831 -841
840.0 841.0 842.0 843.0 845.0 845.0 845.0 847.0 848.0	-852 -862 -873 -883 -893 -903 -913 -924 -934	-853 -863 -874 -884 -894 -904 -925 -935 -945	-854 -865 -875 -885 -895 -905 -916 -936 -946	-855 -866 -876 -886 -896 -917 -927 -937 -947	-856 -867 -877 -887 -887 -997 -918 -928 -938 -948	-857 -868 -868 -898 -898 -919 -929 -929	-858 -869 -879 -889 -899 -909 -920 -930 -940 -950	-859 -870 -880 -890 -900 -910 -921 -931 -941	-860 -871 -881 -891 -901 -911 -922 -932 -942 -952	-861 -872 -882 -892 -902 -9123 -923 -943 -953
85123.00 85523.00 8554.00 8556.00 8556.00 8558.00	-954 -964 -974 -984 -995 -1005 -1015 -1025 -1035 -1045	-955 -965 -975 -985 -996 -1016 -1016 -1036 -1046	-956 -966 -976 -986 -997 -1007 -1017 -1027 -1037 -1047	-957 -967 -977 -987 -998 -1008 -1018 -1028 -1038 -1048	-958 -968 -978 -989 -999 -1009 -1019 -1029 -1039 -1049	-959 -969 -979 -990 -1010 -1020 -1020 -1030 -1040 -1050	-960 -970 -980 -991 -1001 -1011 -1021 -1031 -1041 -1051	-961 -971 -981 -992 -1002 -1012 -1022 -1032 -1042 -1052	-962 -972 -982 -993 -1003 -1013 -1023 -1033 -1043 -1053	-963 -973 -983 -994 -1004 -1014 -1024 -1034 -1044 -1054
860.0 862.0 862.0 863.0 865.0 865.0 865.0 865.0	-1055 -1065 -1075 -1085 -1095 -1105 -1115 -1125 -1135 -1145	-1056 -1066 -1076 -1086 -1096 -1116 -1126 -1126 -1136	-1057 -1067 -1077 -1087 -1097 -1107 -1117 -1127 -1137 -1147	-1058 -1068 -1078 -1098 -1098 -1108 -1118 -1128 -1138 -1148	-1059 -1069 -1079 -1089 -1109 -1119 -1129 -1139 -1149	-1060 -1070 -1080 -1090 -1100 -1110 -1120 -1130 -1140 -1150	-1061 -1071 -1081 -1091 -1101 -1111 -1121 -1131 -1141 -1151	-1062 -1072 -1082 -1092 -1102 -1112 -1112 -1122 -1132 -1142 -1152	-1063 -1073 -1083 -1093 -1103 -1113 -1123 -1123 -1143 -1153	-1064 -1074 -1084 -1104 -1114 -1124 -1134 -1144 -1154
870.0 871.0 872.0 874.0 875.0 875.0 876.0 877.0	-1155 -1165 -1175 -1185 -1195 -1205 -1214 -1224 -1234 -1244	-1156 -1166 -1176 -1186 -1196 -1205 -1215 -1225 -1225 -1235	-1157 -1167 -1177 -1187 -1187 -1207 -1216 -1226 -1236 -1246	-1158 -1168 -1178 -1188 -1198 -1208 -1217 -1227 -1237 -1247	-1159 -1169 -1179 -1189 -1209 -1218 -1228 -1238 -1248	-1160 -1170 -1180 -1190 -1200 -1209 -1219 -1229 -1239 -1249	-1161 -1171 -1181 -1191 -1201 -1210 -1220 -1230 -1240 -1250	-1162 -1172 -1182 -1192 -1202 -1211 -1221 -1231 -1241 -1251	-1163 -1173 -1183 -1193 -1203 -1212 -1222 -1232 -1242 -1252	-1164 -1174 -1184 -1194 -1204 -1213 -1223 -1223 -1233 -1243 -1253
8813.00 8823.00 8856.00 8856.00 8856.00 8858.00 8858.00	-1254 -1264 -1274 -1283 -1293 -1303 -1313 -1323 -1332 -1342	-1255 -1265 -1275 -1284 -1294 -1304 -1314 -1324 -1333 -1343	-1256 -1266 -1276 -1295 -1295 -1305 -1315 -1334 -1334	-1257 -1267 -1277 -1286 -1296 -1306 -1316 -1326 -1335 -1345	-1258 -1268 -1278 -1287 -1297 -1307 -1317 -1327 -1336 -1346	-1259 -1269 -1288 -1298 -1308 -1318 -1327 -1347	-1260 -1270 -1289 -1289 -1299 -1319 -1319 -1338 -1348	-1261 -1271 -1281 -1290 -1300 -1310 -1320 -1330 -1339 -1345	-1262 -1272 -1281 -1291 -1301 -1311 -1321 -1331 -1340 -1350	-1263 -1273 -1282 -1292 -1302 -1312 -1322 -1332 -1341 -1351
890.0 891.0 892.0 893.0 893.0 895.0 895.0 896.0 898.0	-1352 -1362 -1372 -1381 -1391 -1401 -1410 -1420 -1430 -1440	-1353 -1363 -1373 -1382 -1392 -1402 -1411 -1421 -1431 -1441	-1354 -1364 -1374 -1383 -1393 -1403 -1412 -1422 -1432 -1442	-1355 -1365 -1374 -1384 -1394 -1403 -1413 -1423 -1423 -1423	-1356 -1366 -1375 -1385 -1395 -1405 -1414 -1424 -1434 -1443	-1357 -1367 -1376 -1386 -1396 -1406 -1415 -1425 -1435 -1444	-1358 -1368 -1377 -1387 -1397 -1407 -1416 -1426 -1436 -1445	-1359 -1369 -1378 -1388 -1398 -1408 -1417 -1427 -1427 -1446	-1360 -1370 -1379 -1389 -1399 -1409 -1418 -1428 -1438	-1361 -1371 -1380 -1390 -1400 -1419 -1429 -1439 -1448

P, mm Hg	0	1	2	. 3	4	5	6	7	8	9
900. 910. 920. 930. 940. 950. 960. 970. 980.	-1449 -1546 -1641 -1736 -1830 -1923 -2015 -2106 -2197 -2287	-1459 -1555 -1651 -1745 -1839 -1932 -2024 -2115 -2206 -2296	-1469 -1565 -1660 -1755 -1848 -1941 -2033 -2125 -2305	-1478 -1574 -1670 -1764 -1858 -1950 -2042 -2134 -2224 -2314	-1488 -1584 -1679 -1773 -1867 -1960 -2052 -2143 -2233 -2323	-1498 -1593 -1689 -1783 -1876 -1969 -2061 -2152 -2242 -2332	-1507 -1603 -1698 -1792 -1886 -1978 -2070 -2161 -2251 -2341	-1517 -1613 -1707 -1802 -1895 -1987 -2079 -2170 -2260 -2350	-1526 -1622 -1717 -1811 -1904 -1996 -2088 -2179 -2269 -2358	-1536 -1632 -1726 -1820 -1913 -2006 -2097 -2188 -2278 -2367
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1100 • 1110 • 1120 • 1130 • 1140 • 1150 • 1160 • 1170 • 1180 • 1190 •	-3231 -3313 -3394 -3475 -3555 -3555 -3714 -3793 -3871 -3948	-3239 -3321 -3483 -3483 -35643 -3722 -3808 -3956	-3247 -3329 -3410 -3491 -3571 -3651 -3730 -3808 -3866	-3256 -3337 -3419 -3499 -3579 -3579 -3738 -3816 -3894 -3971	-3264 -3346 -3427 -3507 -3587 -3667 -3745 -3824 -3979	-3272 -3354 -3355 -3515 -3595 -3753 -3753 -3832 -3986	-3280 -3362 -3443 -3523 -3603 -3661 -3839 -3917 -3994	-3288 -3370 -3451 -3531 -3611 -3690 -3769 -3847 -3825 -4002	-3297 -3378 -3459 -3539 -3619 -3698 -3777 -3855 -3933 -4010	-3305 -3386 -3467 -3547 -3627 -3706 -3785 -3863 -3940 -4017
1200 • 1210 • 1220 • 1230 • 1240 • 1250 • 1270 • 1280 • 1290 • 1290 •	-4025 -4101 -4177 -4253 -4328 -4402 -4476 -4549 -4622 -4695	-4033 -4109 -4185 -4260 -4335 -4409 -44557 -4657 -4632	-4040 -4117 -4192 -4268 -4342 -4417 -4491 -4564 -4637 -4709	-4048 -4124 -4200 -4275 -4350 -4424 -4498 -4571 -4644 -4717	-4056 -4132 -4207 -4283 -4357 -4432 -4505 -4579 -46724	-4063 -41215 -4215 -4215 -4365 -44313 -45186 -46589 -4631	-4071 -4147 -4223 -4298 -4372 -4446 -4520 -4593 -4666 -4738	-4078 -4154 -42305 -4380 -44527 -4600 -46745	-4086 -4162 -4238 -4313 -4387 -4461 -4535 -4608 -4680 -4753	-4094 -4170 -4245 -4320 -4395 -4468 -4542 -4615 -46188 -4760
1300 • 1310 • 1320 • 1330 •	-4767 -4839 -4910 -4981	-4774 -4846 -4917 -4988	-4781 -4853 -4924 -4995	-4788 -4860 -4931	-4796 -4867 -4938	-4803 -4874 -4945	-4810 -4881 -4952	-4817 -4888 -4959	-4824 -4896 -4966	-4831 -4903 -4973

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Table IX GEOPOTENTIAL ALTITUDE IN FEET AS A FUNCTION OF PRESSURE IN MILLIBARS

TABLE IX

GEOPOTENTIAL ALTITUDE IN FEET as a function of PRESSURE IN MILLIBARS

P, mb	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
8.60 8.70 8.80 8.90	104937 104686 104438	104911 104651 104413	104886 104636 104389	104861 104611 104364	104836 104586 104339	104811 104561 104315	104786 104537 104290	104761 104512 104266	104987 104736 104487 104241	104962 104711 104462 104217
9.10 9.10 9.30 9.30 9.50 9.50 9.70 9.70	104193 103950 103711 103474 103239 103208 102778 102552 102327	104168 103926 103650 103450 103216 102756 102756 102529 1023083	104144 103902 103663 103427 103193 102933 102733 102506 102282	104120 103878 103693 103603 103170 102710 102484 102260	104095 103854 103616 103380 103146 1029687 102461 102238	104071 103830 103832 103356 103123 102865 102439 102216	104047 103806 103533 103100 102872 102642 102417 1021973	104023 103782 103545 103509 103077 102847 102394 102394 102171	103999 103758 103286 103286 103054 102824 102827 102372 102149	103974 103735 103497 103263 103031 102801 102574 102349 102127

P, mb	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
10.00 10.10 10.20 10.30 10.40 10.50 10.60 10.70 10.80 10.90	101885 101668 101452 101239 101028 100819 100612 100407 100204 100003	101863 101646 101431 101218 101207 100798 100591 100387 100184 99983	101841 101624 101409 101197 100986 100777 100571 100366 100164 99963	101820 101603 101388 101176 100965 100757 100550 100346 100144 99943	101798 101581 101367 101154 100154 100736 100530 1005326 100123 99923	101776 101560 101345 101133 100923 100715 100505 100505 100103 99903	101754 101538 101324 101112 100902 100695 100489 100285 100083 99883	101733 101517 101303 101091 100882 100674 100465 100265 100063 99863	101711 101495 101282 101070 100861 100653 100445 100245 100043 99844	101689 101474 101260 101049 100840 100633 100428 100224 100023 99824
11.00 11.10 11.20 11.30 11.40 11.50 11.60 11.70 11.80 11.90	99804 99607 99411 99217 99025 98835 98647 98275 98091	99784 99587 99587 99198 99006 98628 98628 98441 98256 98073	99764 99567 99372 99179 98987 98609 98409 984238 98054	99745 99548 99353 99160 98968 98590 98590 98404 98219 98036	99728 99533 99149 98949 98572 98572 98301 98018	99705 99509 99314 99121 98930 98553 98367 98183 98000	99685 99485 99485 99102 98911 98534 98534 98348 98164 97982	99666 99475 99475 99083 98892 98703 98516 98346 97963	99646 99456 99256 99064 98873 98673 98497 98311 98128 97945	99626 99431 99237 99045 98854 98665 98478 98293 98109 97927
12.00 12.10 12.20 12.30 12.40 12.50 12.60 12.70 12.80 12.90	97909 97728 97549 97372 97196 97022 96848 96677 96506 96338	97891 97710 97332 97354 97179 97104 96831 96660 96489	97873 97692 97514 97537 97161 96814 96643 96473 96304	97855 97675 97676 97319 97144 9669 96797 96625 96456	97837 97657 97657 97478 97301 97126 96780 96603 96639 96270	97818 97639 97461 97284 97109 96935 96762 96591 96422 96254	97800 97621 97643 97266 97091 96917 96745 96574 96405 96237	97782 97603 976425 97249 97074 96728 965287 96388 96220	97764 97585 97407 97231 97056 96883 96711 96540 96371 96203	97746 97567 97390 97214 97039 96866 96694 96523 96354 96187
13.00 13.10 13.20 13.30 13.40 13.50 13.60 13.70 13.80 13.90	96170 96004 95839 95675 95513 95351 95191 95033 94875 94719	96153 95987 95882 95659 95496 95335 95176 95017 94859 94703	96137 95971 95842 95442 95480 95319 95160 95001 94684	96120 95954 95789 95626 95464 95144 94985 94985 94672	96103 95938 95773 95618 95448 95128 94970 94812 94657	96087 95921 95757 95594 95432 95421 95112 94954 94797 94641	96070 95905 955747 955777 95416 95595 94938 94781 94625	96053 95888 95724 95561 95400 95409 95080 94922 94766 94610	96037 95872 95745 95545 95384 95223 95064 94907 94750 94594	96020 95855 95691 95367 95367 95207 95089 94891 94734 94579
14.00 14.10 14.20 14.30 14.40 14.50 14.60 14.60 14.80 14.90	94564 94409 94256 94105 931054 93804 93655 93508 93361	94548 943941 94289 93939 93789 93641 93493 93347 93201	94533 94379 94226 94074 93924 93774 93626 93478 93332 93187	94517 94363 94211 94059 93909 93759 93611 93464 93317	94502 94348 94196 94044 93894 93796 93499 934303 93158	94486 94333 94180 94029 93879 93730 93581 93484 93288 93143	94471 94317 94165 94014 93864 93715 93567 93420 93274 93129	94456 94302 94150 93999 93849 93700 93552 93405 93259	94440 94287 94135 93934 93685 93537 93390 93245 93100	94425 94272 94120 93969 93819 93523 93523 93323 93230 93086
15.00 15.10 15.20 15.30 15.40 15.50 15.60 15.80 15.90	93071 92928 92785 92643 92363 92363 92224 92086 91989 91813	93057 92913 92771 92629 92489 92349 92210 92072 91935 91799	93042 93899 92757 92615 92475 92335 92196 92059 91922 91786	93028 92885 92742 92601 92461 92321 92183 92045 91908 91772	93014 92870 92728 92587 92587 92307 92169 92031 91895 91759	92999 92856 92714 92573 92433 92293 92155 92088 91881 91745	92985 92842 92700 92559 92419 92279 92141 92004 91867 91732	92970 92828 92686 92545 925465 922266 92129 91990 91854 91718	92956 92813 92672 92531 92391 92252 92114 91976 91840 91705	92942 92799 92657 92517 92377 92238 92100 91963 91827 91691
16.00 16.10 16.20 16.30 16.40 16.50 16.60 16.70 16.80 16.90	91678 91543 91410 91277 91145 91014 90884 90755 90626 90498	91664 91530 91397 91264 91132 91001 90871 90742 90613 90486	91651 91517 91383 91251 91119 90988 90858 90729 90601 90473	91637 91503 91370 91238 91106 90975 90845 90716 90588 90460	91624 91490 91357 91224 91093 90932 90832 90703 90703 90447	91610 91477 91343 91211 91080 90949 90819 90690 90562 90435	91597 91463 91330 91198 91067 90936 90806 90678 90549 90422	91584 91450 91317 91185 91054 90923 90794 90665 90537 90409	91570 91437 91304 91172 91041 90910 90781 90652 90524 90397	91557 91423 91290 91159 91027 90897 90768 90639 90511 90384
17.00 17.10 17.20 17.30 17.40 17.50 17.60 17.70 17.80 17.90	90371 90245 90120 89995 89871 89747 89625 89503 89382 89261	90359 90232 90102 89982 89858 89735 89613 89491 89370 89249	90346 90220 90095 89946 89723 89600 89479 89358 89237	90333 90207 90082 89958 89958 89711 89588 89467 89346 89225	90321 90195 90070 89945 89821 89698 89576 89455 89334 89213	90308 90182 90057 89933 89809 89686 89544 893422 89202	90295 90170 90045 89920 89977 89674 89552 89430 89310	90283 90157 90032 89908 89784 89662 89540 89418 89298 89178	90270 90145 90020 89896 89772 89649 89527 89406 89286 89166	90258 90132 90007 89883 89760 89637 89515 89394 89273 89154
18.00 18.10 18.20 18.30 18.40 18.50 18.60 18.70 18.80 18.90	89142 89023 88904 88787 88669 88553 88437 88322 88208 88094	89130 89011 868872 88775 886541 88541 881311 88196	89118 88999 88881 88763 88646 88530 88414 88299 88185 88071	89106 88987 88869 88751 88634 88518 88403 88288 88173 88060	89094 88975 88857 88623 88527 88527 88391 88276 88162	89082 88963 88845 88728 88611 88495 88380 88265 88151 88037	89070 88952 88834 88716 88600 88484 88368 88139 88026	89058 88940 88822 88705 88588 88472 88324 883242 88128 88014	89046 88928 88810 88693 88576 88460 88345 88230 88116 88003	89035 88916 88798 88681 88565 88449 88319 88105 87992
19.00 19.10 19.20 19.30 19.40 19.50 19.60 19.80 19.80	87981 87868 87756 87644 87534 87423 87423 87314 87204 87096 86988	87969 87857 87745 87633 87522 87412 87303 87194 87085 86977	87958 87845 87845 87632 87511 87401 87292 87183 87074 86966	87947 87834 87722 87611 87500 87390 87281 87172 87064 86956	87935 87823 87711 87600 87489 87379 87270 87161 87053 86945	87924 87812 87810 87589 87478 87368 87259 87150 87042 86934	87913 87801 87689 87578 87467 87357 87248 87139 87031 86923	87902 87789 87678 87567 87456 87346 87237 87128 87020 86913	87890 87778 87667 87556 87445 87335 87226 87118 87010 86902	87879 87767 87656 87545 87434 87325 87215 87107 86999 86891

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20.00 21.00 22.30.00 22.50.00 22.50.00 22.50.00 22.50.00 22.50.00	86881 85836 84841 83892 82984 82115 81280 80478 78962	86774 85734 84744 83799 82896 82030 81198 80399 79630 78889	86667 85633 84648 83707 82807 81945 81117 80321 79555 78816	86562 85532 84552 83615 82719 81861 81036 80243 79480 78744	86456 85432 84456 83524 82632 81777 80956 80966 79405 78671	86352 85332 84361 83433 82545 81693 80875 80875 80088 79330 78600	86247 85233 84266 83342 82458 81610 80795 80011 79256 78528	86144 85135 84172 83252 82372 81527 80715 79935 79182 78456	86041 85036 84078 83163 82286 81444 80636 79858 79108 78385	85938 84938 83985 83073 82200 81362 80557 79782 79035 78314
30.0 31.0 32.0 33.0 34.0 35.0 36.0 37.0 38.0	78244 77550 76878 76828 75598 74987 74983 73816 738255 72709	78173 77481 77481 76164 75536 74935 73759 73759 73655	78103 77413 76146 76101 75474 74867 74276 73703 73103 73102	78033 77346 76681 76681 76037 75413 74807 74218 73646 73090 72548	77963 77278 77678 76616 75974 75351 7477 74160 73590 73035 72495	77894 77211 76551 75911 75290 74688 74103 73534 72980 72441	77824 77144 76486 75848 75229 74628 74045 73478 72926 72388	77755 77077 76421 75785 75168 74569 73988 73422 72871 72335	77686 77011 76356 75722 75107 74510 73930 73366 72817 72283	77618 76944 76292 75660 75047 74452 73873 73311 72763 72230
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60.0 61.0 63.0 64.0 65.0 65.0 66.0 66.0 68.0	63711 63367 63029 62696 62368 62046 61728 61415 61107 60803	63677 63333 62995 62663 62336 62014 61697 61384 61076 60773	63642 63299 62962 62630 62303 61965 61353 61046 60743	63607 63265 62929 62597 62271 61950 61634 61322 61015	63573 63231 62895 62564 62239 61962 61962 61985 60683	63539 63197 62862 62532 62536 61886 61571 61571 60955 60653	63504 63164 62829 62499 62174 61855 61540 61924 60923	63470 63130 62795 62795 62142 61823 61509 61199 60894 60593	63436 630762 62434 621191 61477 61168 60864 60563	63401 63063 62729 62401 62078 61760 61446 61138 60833 60534
70.0 71.0 72.0 73.0 74.0 75.0 76.0 77.0 78.0 79.0	60504 60209 59918 59631 59348 59068 58793 58521 58252 57987	60174 60180 59889 59622 59620 59041 58766 58492 57961	60445 60150 59860 59574 59292 59013 58738 58467 58199 57935	60415 60121 59831 59546 59564 58985 58711 58440 58173 57909	60385 60092 59803 59517 59236 58958 58413 58413 58186 57882	60356 60063 59774 59489 59408 58930 58656 58120 57856	60326 60034 597461 597461 59180 58629 58359 58359 58359	60297 600057 59717 59432 59432 58875 58602 58603 58067 57804	60268 59976 59976 59404 59124 58575 58306 58306 57778	60238 59947 59659 59376 59820 58548 58579 58014 57752
80.00 81.00 82.00 84.00 85.00 86.00 87.00 889.00	57726 57467 57212 56960 56711 56464 56221 55980 55743 55508	57700 57442 57187 56935 56486 56440 56197 55957 55484	57674 57416 57161 56910 56661 56415 564173 55933 556935 55461	57648 57390 57136 56885 566391 56149 55909 55972 55438	57622 57365 57111 56860 56612 56367 56124 55885 55414	57596 57339 57085 56835 56587 56342 56100 55861 55625 55391	57570 57314 57060 56810 56563 56318 56076 55837 55601 55368	57544 57288 57285 56785 56538 56538 56052 55814 55578 55345	57519 57263 57260 56710 56513 56529 56028 55790 555554 55321	57493 57237 56985 56489 56245 56004 55531 55298
90.0 91.0 92.0 93.0 94.0 95.0 96.0 97.0 98.0	55275 55045 54818 54593 54370 54150 53717 53503 53292	55252 55252 55725 54771 54348 54128 53911 53695 53271	55229 55773 54778 54326 541089 53674 53250	55206 54977 54750 54526 54324 54085 53867 53653 53440 53229	55183 54954 54728 54728 54282 54282 53846 53631 53419 53208	55160 54931 54705 54481 54260 54041 53824 533610 53397 53187	55137 54909 54458 544238 54013 53808 533376 53166	55114 54886 54660 54437 54216 53997 53781 53567 53355 53146	55091 54863 54863 54415 54194 53760 53760 53546 53334 53125	55068 54840 54615 546172 54172 53954 53738 53525 53313 53104
100.0 101.0 102.0 103.0 104.0 105.0 106.0 107.0 108.0	53083 52876 52671 52468 52267 52068 51675 51675 51482 51490	53062 52855 52855 52651 52448 52448 52048 51851 51656 51471	53041 52835 52835 52428 52427 52028 51831 51636 51443 51452	53021 52814 52610 52408 52207 52009 51812 51617 51424 51233	53000 52794 52590 52387 52187 51198 51798 51598 51405 51414	52979 52773 52569 52367 52167 51969 51773 51578 51 386 51 195	52959 52753 527549 523447 52147 511753 511759 511567 51176	52938 52732 527329 52327 52127 511730 511734 511347 511347	52917 52712 52712 52307 52108 51714 51520 51328 51138	52897 52691 52488 52488 52088 51890 51691 51309 51119
110.0 111.0 112.0 113.0 114.0 115.0 116.0 117.0	51100 50912 50925 50725 50540 50357 50175 49995 49816 49639 49464	51081 50893 50707 50522 50339 50157 49977 49799 49622 49446	51062 50874 50888 50503 50320 501399 49781 49781 49604 49429	51043 50856 50669 50485 50121 49941 49763 49587	51025 50837 50851 50484 50103 49723 49745 49745 49394	51006 50818 50632 50448 50266 50085 49928 49728 49551	50987 50800 50614 50430 50248 50067 49888 49710 49534 49359	50968 50781 50596 50412 50230 50049 49870 49692 49516 49342	50949 50762 50577 50393 50211 50031 49852 49675 49499 49324	50930 50744 50559 50375 50193 50013 49834 49657 49481 49307

TABLE IX - Continued

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140.0 141.0 142.0 143.0 144.0 145.0 146.0 146.0 146.0	46082 45934 45787 45641 45496 45352 45209 45067 44926 44786	46068 45920 459773 45627 45482 45338 45195 45195 45912 44912	46053 45905 45758 45612 45467 45324 45181 45181 4589 44898	46038 45890 45743 45798 45453 45309 45167 45025 44884 44744	46023 45875 45875 45583 45583 45439 45295 45152 45152 45870 44730	46008 45861 45714 45569 45424 45281 45138 44997 44856 44716	45993 45846 45700 45554 45410 45266 451224 44982 44703	45979 45831 45540 455540 45395 45252 45110 44968 44828 44689	45964 45817 45525 45528 45238 45238 45954 44954 44814 44675	45949 45802 455511 45367 45224 45940 44800 44661
150.0 151.0 152.0 153.0 154.0 155.0 156.0 157.0 158.0	44647 44509 44371 44235 44099 43931 43831 43698 43566 43435	44633 44495 44358 44221 44086 43951 43818 43685 43553 43422	44619 44461 44344 44208 44072 43938 43804 43672 43540 43409	44605 44467 44330 44194 44059 43925 43791 43658 43526 43395	44592 44454 44317 44181 44045 43911 43778 43645 43513 43382	44578 44440 44303 44167 44032 43898 43764 43500 43369	44564 44426 44289 44154 44019 43884 43751 436187 436187 43356	44550 44413 44276 44140 44005 43871 43738 43605 43474 43343	44536 44399 44262 44126 43992 43858 43598 43592 43461 43330	44523 44385 44249 44113 43978 43844 43711 43579 43448 43317
160.0 161.0 162.0 163.0 164.0 165.0 165.0 167.0 168.0 169.0	43304 43175 43046 42918 42790 42664 42538 42413 424289 42166	43291 43162 431935 42978 42778 42526 42526 42401 422477 42153	43278 43149 431090 42892 42765 425139 425138 422384 422441	43265 43136 43007 42879 42752 42626 42501 42376 42252 42129	43252 43123 42867 42867 42740 42488 42364 42364 42116	43239 43110 42982 42854 42727 42601 42475 42227 42104	43226 430967 42841 42544 425463 424339 422315 422092	43213 43084 42956 42829 42702 42576 42451 42451 42203 42080	43200 43071 42943 42816 42689 42563 42438 42114 42190 42067	43188 43059 42930 42677 42551 42426 42301 42178 42055
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190.0 191.0 192.0 193.0 194.0 195.0 196.0 197.0 198.0	39729 39620 39511 39403 39295 39188 39082 38976 38766	39718 39609 39500 39392 39285 39171 38965 38965 38755	39707 39598 39489 39381 39274 39167 39061 38955 38955 38745	39696 39587 39478 39370 39263 39156 39050 38839 38734	39685 39576 39468 39360 39252 39146 39039 38934 38829 38724	39674 39565 39457 39349 39242 39135 39029 38923 38818 38714	39663 39554 39438 39438 39231 39124 39018 38808 38703	39652 39543 395435 39327 39327 39114 39008 38797 38693	39641 39533 39424 39317 39210 39103 38997 38892 38787 38682	39630 39522 39414 39306 39199 39092 38987 38881 38776 38672
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210.0 211.0 212.0 213.0 213.0 215.0 215.0 216.0 216.0 219.0	37646 37548 37449 37351 37254 37157 37060 36964 36869 36773	37637 37538 37439 37342 37244 37147 37051 36955 36859 36764	37627 37528 37430 37332 37234 37137 37041 36945 36849 36754	37617 37518 37420 37322 37325 37128 37031 36935 36840 36745	37607 37508 37410 37312 37215 37118 37022 36926 36830 36735	37597 37498 37400 37303 37205 37109 37012 36916 36821 36726	37587 37488 37390 37293 37196 37099 37003 36907 36811 36716	37577 37479 37381 37283 37186 37089 36993 36897 36802 36707	37567 37469 37371 37273 37176 37080 36983 36888 36792 36697	37557 37459 37361 37264 37167 37070 36974 36878 36783 36688

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
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281-0 281-0 282-0 283-0 283-0 285-0 285-0 287-0 289-0	31570 31493 31416 31339 31262 31186 31110 31034 30958 30883	31562 31485 31408 31331 31255 31178 31102 31026 30951 30875	31555 31477 31400 31324 31247 31247 31171 31095 31019 30943 30867	31547 31470 31393 31316 31239 31163 31087 31087 31011 30935 30860	31539 31462 31385 31308 31232 31155 31079 31004 30928 30852	31531 31454 31377 31301 31224 31148 31072 30920 30920 30845	31524 31447 31370 31293 31216 31140 31064 30913 30913 30837	31516 31439 31362 31365 31285 31209 31133 31057 30981 30905 30830	31508 31431 31354 31278 31201 31125 31049 30973 30898 30822	31501 31423 31347 31270 31194 31117 31041 30966 30890 30815
290.0 291.0 292.0 293.0 294.0 295.0 296.0 297.0 298.0 299.0	30807 30732 30657 30583 30508 30434 30360 30286 30212 30139	30800 30725 30650 30575 30501 30426 30352 30275 30131	30792 30717 30642 30568 30493 30419 30345 30271 30197	30785 30710 30635 30560 30486 30412 30338 30264 30190 30117	30777 30702 30627 30553 30478 30404 30330 30256 30183 30109	30770 30695 30620 30545 30471 30397 30323 30249 30175 30102	30762 30687 30612 30538 30463 30389 30315 30242 30168 30095	30755 30680 30685 30530 30456 30382 30308 30234 30161 30087	30747 30672 30527 30523 30449 30375 30301 30227 30153 30080	30740 30665 30590 30516 30441 30367 30220 30146 30073
300.0 301.0 302.0 303.0 304.0 305.0 306.0 307.0 308.0 309.0	30065 29992 29919 29847 29774 29702 29630 29588 29486 29415	30058 29985 29912 29840 29767 29695 29623 29551 29479 29408	30051 29978 29905 29832 29760 29688 29616 29544 29472 29400	30043 29970 29898 29825 29753 29680 29608 29536 29465 29393	30036 29963 29890 29818 29815 29673 29673 29529 29458 29386	30029 29956 29883 29881 29738 29666 29524 29522 29450 29379	30022 29949 29876 29803 29731 29659 29515 29515 29443 29372	30014 29941 29869 29724 29652 29508 29508 29436 29365	30007 29934 29861 29789 29716 29644 29501 29429 29358	30000 29927 29858 29782 29709 29637 29565 29493 29422 29351
310.0 311.0 312.0 313.0 314.0 315.0 316.0 317.0 318.0	29343 29272 29201 29130 29060 28989 28919 28849 28779 28709	29336 29265 29194 29195 28982 28982 28812 28842 28772 28703	29329 29258 29187 29116 29046 28905 28905 28835 28765 28696	29322 29251 29180 29109 29039 28968 28898 28828 28758 28689	29315 29244 29173 29102 29032 28961 28891 28821 28751 28682	29308 29237 29166 29095 29025 28954 28884 28814 28744 28675	29301 29230 29159 29088 29018 28947 28807 28737 28668	29294 29223 29152 29081 29011 28940 28870 28870 288730 28661	29286 29215 29145 29074 29003 28933 28933 28793 28723 28654	29279 29208 29138 29167 28996 28926 28856 28786 28716 28647

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
320.0 321.0 322.0 323.0 323.0 324.0 325.0 325.0 327.0 327.0 327.0 329.0	28640 28571 28501 28432 284364 28295 28226 28158 28090 28022	28633 28564 28495 28495 28357 28288 28220 28151 28083 28015	28626 28557 28488 28488 28350 28351 28213 28213 28144 28008	28619 28550 28481 28412 28343 28274 28206 28138 28070 28002	28612 28543 285474 28405 28336 28136 28199 28131 28063 27995	28605 28536 28467 28467 28329 28261 28122 28124 28056 27988	28598 28529 28461 28392 28392 28254 28185 28187 28049 27981	28591 28522 28453 28453 28315 28247 28179 28179 28042 27974	28584 28515 28446 28377 28309 28240 28172 28172 281036 27968	28578 28508 284379 28302 28302 28233 28165 28097 28029 27961
330.0 331.0 332.0 333.0 334.0 335.0 336.0 337.0 338.0	27954 27886 27819 27752 27684 27684 27551 27484 27484 27487 27351	27947 27880 27812 27745 27678 27671 27544 27477 27411 27344	27941 27873 27875 27738 27671 27674 27537 27471 27471 27338	27934 27866 27799 27731 27664 27531 27531 27464 27331	27927 27859 27792 27725 27658 276591 27524 27457 27451 27325	27920 277853 27785 27718 27651 27651 27517 27451 27451 27318	27914 27846 27849 27711 27644 27511 27444 27378 27311	27907 27839 27839 27772 27705 27638 27504 27504 27437 27371 27305	27900 27832 27832 27698 27691 27631 27497 27431 27364 27298	27893 27826 277591 27624 27557 27424 27358 27358
340.0 341.0 342.0 343.0 344.0 345.0 346.0 347.0 348.0 349.0	27285 27219 27153 27057 27022 26956 26821 26826 26761 26696	27278 27212 27146 27081 27015 26950 26884 26819 26754 26690	27272 27206 271040 27074 27009 26878 26813 26813 26683	27265 27199 27133 27068 27002 26937 26871 26806 26741 26677	27258 27192 27127 27061 26995 26865 26865 268735 26670	27252 27186 27186 271054 26989 26958 26728 26728 266728	27245 27179 27114 27048 26982 26987 26852 26782 26782 26657	27239 27173 27107 27041 26976 26911 26845 26786 26716 26651	27232 27166 27166 27035 26969 26939 26839 26774 26709 26644	27225 27160 27094 27028 26997 26897 26832 26767 26703 26638
350.0 351.0 352.0 353.0 354.0 355.0 356.0 357.0 358.0 359.0	26631 26567 26503 26438 264374 26310 26247 26119 26056	26625 26560 26496 26493 26368 26304 26240 26177 26113 26050	26619 26554 26456 26426 26361 26234 26170 26177 26043	26612 26548 26483 26419 26355 26291 26227 26100 26037	26606 26541 26417 26419 26231 26221 26158 26031	26599 26535 26470 26406 26378 26215 26151 26188 26024	26593 26528 26464 26400 26336 26208 26145 26145 26018	26586 26522 26458 26393 26393 26266 26202 26175 26012	26580 26515 26451 26387 26323 26259 26196 26196 26006	26573 26509 26445 26381 26317 26253 26189 26189 26062 25999
360.0 361.0 362.0 363.0 364.0 365.0 366.0 367.0 368.0 369.0	25993 25930 25867 25804 25842 25679 25617 25549 25492 254930	25987 25984 25861 25735 25610 25610 25486 25486 25484	25980 25917 255791 255799 25604 255480 25480 25418	25974 25911 25848 25723 25660 25598 25598 25474 25412	25968 25905 25842 25776 25716 25754 25592 255468 25406	25961 25898 25836 25773 25748 25582 25582 255461 25399	25955 25892 25829 25764 25764 25679 25517 255459 25393	25949 25886 25826 2587698 256935 25573 25511 255449 25387	25942 25880 25817 25754 25762 25629 25567 255443 25381	25936 25873 25810 25685 25685 25683 25561 25437 25437
370.0 371.0 372.0 373.0 374.0 375.0 376.0 376.0 378.0	25369 25307 25245 25184 25182 25062 25061 24940 24979 24818	25362 25301 25239 25177 25177 25055 24994 24973 24872	25356 253295 255295 255170 255170 255948 24927 24866	25350 25288 25227 25166 25104 25043 24982 24982 24981 24861 24800	25344 2552821 2552821 255159 25037 24975 24975 249854	25338 25276 25215 25153 25153 25031 24970 24909 24849 24788	25332 25279 25209 251446 25025 24964 24963 24963 24843 24782	25325 25264 25202 25108 25108 25019 24958 24957 24836 24776	25319 25258 25196 25135 25013 24952 24891 24830 24770	25313 25252 25179 25168 25007 24946 24824 24764
380.0 381.0 382.0 383.0 384.0 385.0 386.0 387.0 388.0 389.0	24758 24697 24637 24517 24517 24457 24398 24338 24278 24219	24752 24691 24631 24571 24511 24451 24392 24392 24373 24273	247485 24685 244525 244565 244565 244386 244386 2443267 24207	24740 24679 24619 24559 24559 24439 24380 24380 24380 24261 24201	24734 24673 24673 244553 24493 244374 24374 24374 24375 24195	24728 24667 24607 24547 24587 24487 24368 24308 24249 24189	24722 24661 24601 24541 245481 24481 24362 24362 24302 24243 24184	24716 24655 24595 24595 24575 24415 24356 24237 24178	24709 24649 24589 24589 24569 24469 24350 24231 24172	24703 24643 24583 24583 24463 24403 24344 24284 24225 24166
390.0 391.0 392.0 393.0 394.0 395.0 396.0 397.0 398.0 399.0	24160 24101 24042 23983 23924 23866 23807 23749 23690 23632	24154 24095 24036 24036 23918 23860 23801 23743 23685 23626	24148 24089 24089 240971 23912 23912 23757 23737 23621	24142 24083 24024 23907 23848 23790 23731 23673 23615	24136 24077 24078 23959 23901 23984 23725 23667 23609	24130 24071 24012 23954 23895 23836 23778 23720 23661 23603	24124 24065 24066 23948 23889 23772 23714 23656 23597	24118 24059 24001 23942 23883 23825 23766 23768 23650 23592	24113 24054 23995 23936 23877 23819 23762 23762 23644 23586	24107 24048 23989 23930 23671 23813 23755 23696 23638 23580
400.0 401.0 402.0 403.0 403.0 405.0 406.0 407.0 408.0 409.0	23574 23516 23459 23401 23243 23286 23229 23171 23114 23057	23568 23511 23453 23395 23338 23280 23223 23109 23109 23052	23563 23505 23447 23389 23332 23217 23160 23163 23046	23557 23499 23441 23384 23326 23269 23211 23154 23097 23040	23551 23493 23435 23378 233263 23263 23206 23148 23091 23034	23545 23487 23430 23372 23315 23257 23200 23143 23086 23029	23539 23482 23424 23369 23251 23194 23197 23080 23023	23534 23476 23418 23361 23303 23246 23188 23131 23074 23017	23528 23470 23412 233555 23257 23240 23183 23186 23069 23012	23522 23464 23407 23492 23294 23234 23177 23120 23063 23006
410.0 411.0 412.0 413.0 414.0 415.0 416.0 417.0 418.0 419.0	23000 22944 22887 22830 22774 22718 22661 22665 22549 22493	22995 22938 22938 228825 228762 22712 22656 22644 225448	22989 22932 22876 22819 22763 22765 222594 22538 22482	22983 22927 22870 22813 22757 22701 22645 22589 22533 22477	22978 22921 22864 22858 22751 226639 22583 22527 22471	22972 22915 22859 22869 22869 22690 22633 22577 22521 22466	22966 22910 22853 22740 22740 22628 22572 22576 22460	22961 22904 22847 22735 22735 22678 22622 22566 22510 22454	22955 22842 22785 22729 22673 22617 22561 22505 22449	22949 228936 227836 227823 22667 22661 22555 22499 22443

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
420.0 421.0 422.0 423.0 423.0 425.0 426.0 427.0 427.0 429.0	22438 22382 22326 22316 2216 22160 22105 22050 21995 21940	22432 22376 22321 22265 22210 22155 22100 22045 21990 21935	22427 22371 22315 22260 22205 22149 22039 21984 21984	22421 22365 22310 22254 22199 22144 22089 22084 21979 21924	22415 22364 22364 22249 22138 22083 22028 21973 21919	22410 22354 222243 222188 22133 22023 22023 21968 21913	22404 22349 222938 22182 22127 22017 22017 21962 21908	22399 22343 22288 22232 22177 22122 22067 22012 21957 21902	22393 22338 222827 22171 22116 22006 21951 21897	22388 22332 22271 22166 22111 22056 22001 21946 21891
430.0 431.0 432.0 433.0 434.0 435.0 436.0 437.0 438.0 439.0	21886 21831 21777 21722 21668 21664 21560 21506 21506 21398	21880 21826 21771 21717 21662 21668 21554 21554 21500 21446 21392	21875 21820 21766 21711 21657 21549 21549 21441 21387	21869 21815 21760 21706 216597 21543 21543 21489 21485 21382	21864 21809 21755 21760 21646 21538 21484 21430 21376	21858 21849 21695 21641 21587 21533 21479 21425 21371	21853 21798 21794 21690 21635 21581 21527 21473 21419 21366	21848 21793 21799 21684 21630 21576 21522 21468 21414 21360	21842 21788 21783 21679 21625 21570 21516 21469 21409 21355	21837 21782 21728 21673 21619 21565 21511 21457 21403 21349
440.0 442.0 443.0 444.0 445.0 446.0 447.0 447.0	21344 21291 21237 21184 21130 21024 20971 20971 20865	21339 211232 21178 21178 211079 21019 20966 20860	21333 21286 21273 21120 21120 21120 21013 20960 20955	21328 21274 21221 21168 21116 211061 21008 20952 20952 20849	21323 21269 211266 211169 211096 210033 209597 20844	21317 21264 21260 21157 211050 20997 20994 20899 20839	21312 211255 211255 211095 211095 210992 20986 20883	21307 21253 21200 21146 21093 21093 210987 20987 209881 20828	21301 21248 21194 21141 21085 210981 20981 20929 20876 20823	21296 21242 21189 21186 21082 21029 20976 20923 20870 20818
451.0 452.0 453.0 454.0 456.0 456.0 457.0 459.0	20812 207607 200755 20652 20652 20558 20498 20496 20342	20807 20754 20754 20649 20597 20545 20441 20389 20337	20802 2007497 200644 200592 200540 200487 200483 200383 200332	20797 20744 20691 20639 20587 20534 20482 20430 20378 20378	20791 20739 20686 20634 20581 20581 20477 20425 20373 20321	20786 20733 20681 20629 20576 20524 20472 20472 20468 20316	20781 20728 20676 20623 20571 20571 20467 20465 20363 20311	20776 20723 20670 20618 20566 20514 20461 20409 20357 20306	20770 20718 20065 200613 20561 20561 20456 20456 20404 20352 20300	20765 20712 20660 20655 20555 20503 20451 20399 20347 20295
460.0 461.0 462.0 463.0 464.0 465.0 466.0 467.0 469.0	20290 20238 20137 20135 20084 20032 19981 19930 19828	20285 20233 20182 20130 20079 20027 19976 19925 19823	20280 20228 20125 20125 20073 20022 19971 19920 19869 19818	20275 20223 20171 20120 20068 20017 19966 19915 19864 19813	20269 20218 20166 20115 20063 20012 19961 19910 19858 19807	20264 20213 20161 20109 20058 20007 19954 19853 19802	20259 20207 20156 20104 20053 20053 19950 19848 19797	20254 20202 20151 20099 20048 19997 19945 19843 19792	20249 20197 20194 20094 20043 19991 19940 19889 19888 19787	20244 20192 20140 20089 20038 19986 19935 19884 19833 19782
470.0 471.0 472.0 473.0 474.0 475.0 476.0 477.0 478.0	19777 19726 19675 19625 19524 19524 19473 19423 19423 19323	19772 19721 19721 19620 19569 19569 19468 19418 19318	19767 19716 19615 19615 19564 19514 19463 19413 19413	19762 19711 19660 19650 19559 19509 19458 19408 19358	19757 19706 19655 19605 19554 19554 19453 19453 19453	19752 19701 19650 19599 19549 19498 19448 19348 19348	19746 19696 19645 19544 19544 19493 19493 19343 19343 19293	19741 19691 19640 19539 19539 19488 19438 19388 19388	19736 19686 19635 19534 19534 19483 19483 19433 19333	19731 19680 19630 19579 19529 19478 19428 19378 19328 19328
480.0 482.0 483.0 485.0 485.0 486.0 487.0 489.0	19273 19223 19173 19123 19073 19024 18974 18925 18875 18826	19268 19218 19168 19168 19168 19068 19019 18969 18920 18870 18821	19263 19213 19163 19163 19063 19014 18964 18965 18865	19258 19208 19158 19158 19158 19058 19009 18959 18910 18860 18811	19253 19203 19153 19103 19053 19054 18954 18955 18855	19248 19198 19148 19048 19048 18999 18949 18950 18850	19243 19193 19143 19043 19043 18994 18944 18895 18846 18796	19238 19188 19138 19038 19038 18989 18939 18939 18841 18791	19233 19183 19133 19033 19033 18984 18984 18885 18836 18786	19228 19178 19128 19029 18979 18929 18980 18831 18782
490.0 491.0 492.0 493.0 494.0 495.0 496.0 497.0 498.0 499.0	18777 18727 18678 18629 18581 18532 18483 18483 18434 18434	18772 18723 18625 18625 18576 18527 18478 18429 18381 18332	18767 18718 18669 18620 18571 18522 18473 18425 18376 18328	18762 18713 18664 18615 18566 18517 18468 18420 18371 18323	18757 18708 18659 18610 18561 18512 18464 18415 18366	18752 18703 18654 18655 18556 18507 18459 18410 18361 18313	18747 18698 18649 18600 18551 18502 18454 18405 18357 18308	18742 18693 18644 18595 18546 18498 18449 18449 18352 18352	18737 18688 18639 18590 18541 18493 18444 18395 18347 18298	18732 18683 18634 18535 18537 18488 18439 18391 18342 18342
501-0 501-0 502-0 503-0 504-0 506-0 506-0 508-0	18289 18240 18192 18144 18096 18048 18000 17952 17904 17856	18284 18236 18187 18187 18139 18091 18043 17995 17947 17899 17852	18279 18231 18183 18134 18086 18038 17990 17942 17895 17847	18274 18226 18178 18130 18081 18033 17986 17938 17890 17842	18269 18221 18173 18125 18077 18029 17981 17933 17835 17837	18265 18216 18168 18120 18072 18024 17976 17928 17880 17833	18260 18211 18163 18163 18067 18067 18019 17971 17923 17876 17828	18255 18207 18158 18110 18062 18014 17966 17919 17871 17823	18250 18202 18154 18154 18057 18009 17962 17914 17866 17818	18245 18197 18149 181053 18055 17957 17969 17861
510.0 512.0 512.0 513.0 515.0 515.0 515.0 516.0 517.0	17809 17761 17714 17666 17619 17572 17524 17477 17430 17383	17804 17756 17709 17662 17614 17567 17520 17473 17426 17379	17799 17752 17764 17657 17610 17562 17515 17468 17421 17374	17795 17747 17700 17652 17605 17558 17510 17463 17416 17369	17790 17742 17695 17647 17600 17553 17506 17459 17412 17365	17785 17737 17690 17643 17595 17548 17501 17501 17454 17407 17360	17780 17733 17685 17638 17591 17543 17543 17496 17449 17402 17355	17776 17728 17681 17633 17586 17539 17491 17444 17397	17771 17723 17676 17628 17581 17534 17487 17440 17393 17346	17766 17718 17671 17624 17576 17526 17482 17435 17435 17388

TABLE IX - Continued

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
520.0 521.0 522.0 523.0 524.0 525.0 526.0 527.0 528.0 529.0	17336 17290 17243 17196 17150 17150 17010 17010 16964 16917	17332 17285 17238 17145 17145 17098 17055 16959 16913	17327 17280 17233 17187 17140 17094 17047 17001 16954 16908	17322 17276 17229 17182 17136 17089 17043 16996 16950 16904	17318 17271 17224 17177 17131 17084 17088 16992 16945 16899	17313 17266 17219 17173 17126 17080 17033 16987 16941 16894	17308 17262 17215 171168 17122 17075 17029 16982 16936 16890	17304 17257 17210 171163 17117 17070 17024 16978 16931 16885	17299 17252 17255 17159 17112 17066 17019 16973 16927 16881	17294 17247 17207 17154 17108 17061 17061 17065 16968 16922 16876
530.0 531.0 532.0 533.0 533.0 535.0 536.0 536.0 538.0 539.0	16871 16825 16779 16733 16687 16684 16596 165504 165504 16459	16867 16821 16775 16729 166837 16591 16591 16500 16454	16862 16816 16770 16724 16678 16632 16586 165495 16495	16857 16811 16765 16769 16673 16628 16582 16536 16491 16445	16853 16807 16761 16715 16669 16623 16577 16532 16486 16441	16848 16802 16756 16710 16664 16618 16573 16527 16481 16436	16844 16752 16756 16766 16660 16614 16568 16523 16477	16839 16793 16747 16701 16655 16609 16564 16572 16472	16834 16788 16782 16696 16651 16605 16559 16559 16468 16422	16830 16784 16788 16692 16646 16600 16554 16509 16463 16418
540.0 541.0 542.0 543.0 544.0 545.0 546.0 548.0 549.0	16413 16368 16322 16277 16232 16187 16142 16097 16097	16409 16363 16318 16273 16227 16127 16137 16094 160947 16002	16404 16359 16368 16268 16223 16178 16133 16084 160843 15998	16400 16354 16309 16264 16218 16173 16128 16083 16038 15993	16395 16350 16304 16259 16214 16169 16124 16079 16034 15989	16391 16345 16300 16255 16209 16164 16119 16019 16029 15984	16386 16341 16295 16250 16205 16160 16115 16025 15980	16381 16336 16291 16245 16200 16155 16110 16065 16020 15975	16377 16332 16286 16241 16196 16151 16106 16061 16016 15971	16372 16327 16282 16236 16191 16146 16101 16056 16011
550.0 551.0 552.0 553.0 553.0 555.0 555.0 555.0 559.0	15962 15917 15828 15828 15783 15783 15694 15666 15562	15957 15913 15868 15823 157734 15690 15646 15646 15557	15953 15908 15864 15819 15774 157730 15686 15641 155597	15949 15904 15859 15815 15726 15681 15681 15592 15548	15944 15899 15855 15810 15766 15721 15677 15632 15588 15544	15940 15895 15850 15806 15761 15717 15628 15584 15539	15935 15890 15846 15801 15757 15712 15668 15679 15579	15931 158841 15797 15752 15758 15663 15663 15619 15575 15531	15926 15881 15837 15792 15748 15703 15659 15615 15570 15526	15922 15877 15832 15743 15699 15651 15666 15566
560.0 561.0 562.0 563.0 564.0 565.0 566.0 567.0 568.0 569.0	15517 15473 15429 15385 15341 15254 15254 15210 15123	15513 15469 15425 15381 15387 15293 15249 15246 15162 15118	15508 15464 15476 15332 15332 15245 15201 15157 15114	15504 15460 15416 15372 15328 15284 15240 15197 15153 15110	15500 15456 15456 15468 15324 15280 15236 15199 15199	15495 15451 15407 15363 15319 15275 15232 15188 15144 15101	15491 15447 15349 15359 15315 15227 151227 15184 15184 15096	15486 15442 15394 15354 15311 15267 15223 15179 15136 15092	15482 15438 15394 15396 15306 15262 15219 15175 15131 15088	15478 15434 15396 15346 15302 15258 15217 15127 15127 15083
570.0 571.0 572.0 573.0 574.0 576.0 576.0 577.0 577.0	15079 15036 14992 14949 14905 14862 14819 14776 14733 14690	15075 15031 14988 14944 14901 14858 14815 14772 14772 14686	15070 15027 14940 14897 14854 14810 14767 14764 14681	15066 15023 14979 14936 14893 14849 14806 14763 14720 14677	15062 15018 14975 14931 14888 14845 14802 14759 14716 14673	15057 15014 14970 14927 14884 14841 14798 14754 14711 14668	15053 15010 14966 14923 14880 14836 14793 14750 14707	15049 15005 14962 14918 14875 14832 14789 14746 14703 14660	15044 15001 14957 14914 14871 14828 14785 14785 14742 14698 14656	15040 14996 14953 14917 14867 14823 14780 14737 14694 14651
580.0 581.0 582.0 583.0 584.0 585.0 586.0 587.0 588.0 589.0	14647 14604 14519 14519 14476 14433 14391 14348 14348 14366	14643 14600 14557 14514 14472 14429 14386 14344 14301 14259	14638 14596 14553 14510 14467 14425 14382 14340 14397 14255	14634 14591 14548 14506 14503 14420 14335 14293 14251	14630 14587 14501 14501 14459 14416 14374 14331 14289 14246	14626 14583 14540 14497 14454 14412 14369 14327 14327 14284 14242	14621 14578 14578 14493 14490 14450 14365 14365 14323 14280 14238	14617 14574 14531 14489 14446 14403 14361 14361 14318 14276 14234	14613 14570 14527 14484 14442 14399 14357 14357 14272 14272	14608 14566 14523 14487 14395 14352 14310 14267 14225
590.0 591.0 592.0 593.0 593.0 595.0 596.0 597.0 598.0	14221 14179 14136 14094 14052 14010 13968 13966 13984	14217 14174 14132 14090 14048 14006 13964 13964 13880 13880	14212 14170 14128 14086 14044 14042 13960 13918 13918 13834	14208 14166 14124 14082 14039 13997 13955 13914 13872 13830	14204 14162 14119 14077 14035 13993 13951 13967 13867	14200 14157 14115 14073 14031 13989 13947 13905 13863 13821	14195 14153 14151 14069 14027 13985 13943 13961 13859 13817	14191 14149 14107 14065 14023 13981 13939 13897 13855 13813	14187 14145 14103 14060 14018 13976 13934 13893 13851 13809	14183 14141 14095 14056 14014 13972 13988 13847 13805
600.0 601.0 602.0 603.0 603.0 605.0 605.0 606.0 607.0 608.0	13801 13759 13717 13674 13634 13593 13551 13551 13468 13468	13796 13755 13713 13671 13630 13588 13547 13547 135464 13464	13792 13751 13759 13667 13626 13584 13543 13543 13540 13419	13788 13746 13705 13663 13622 13580 13539 13497 13497 13456	13784 13742 13701 13659 13617 13576 13535 13493 13452 13411	13780 13738 13695 13613 13572 13530 13489 13448 13407	13776 13734 13692 13651 13609 13568 13566 13485 13444 13402	13771 13730 13688 13647 13605 13564 13522 13481 13440 13398	13767 13726 13684 13684 13601 13559 13518 13477 13435 13435	13763 13721 13680 13638 13597 13555 13514 13473 13431
610.0 611.0 612.0 613.0 613.0 615.0 616.0 616.0 617.0 618.0	13386 13345 13304 13263 13222 13181 13140 13099 13058 13017	13382 13341 13300 13259 13218 13177 13176 13095 13095 13013	13378 13337 13295 132954 13213 13172 13132 13132 13091 13090	13374 13332 13291 13250 13269 13168 13128 13087 13046 13005	13369 13328 13287 13287 13246 13205 13164 13123 13083 13042 13001	13365 13324 13283 13242 13201 13160 13119 13079 13038 12997	13361 13320 13279 13238 13197 13156 13115 13074 13034 12993	13357 13316 13275 13234 13193 13152 13152 13151 13070 13030 12989	13353 13312 13271 13271 13280 13189 13148 13107 13066 13026	13349 13308 13266 13185 13144 13103 13062 13021 12981

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
620.0 621.0 622.0 623.0 623.0 625.0 626.0 626.0 629.0	12977 12936 12896 12855 12815 12774 12734 12693 12653	12973 12932 12891 12851 12811 12770 12730 12689 12649 12609	12969 12928 12887 12847 12806 12766 12766 12685 12645 12605	12965 12924 12883 12843 12802 12762 12762 12762 12681 12641 12601	12960 12920 12879 12839 12798 12758 12718 12718 12637 12637	12956 12916 12875 12835 12794 12754 12754 12673 12633 12633	12952 12912 12871 12831 12790 12750 12750 12669 12669 12689	1 2948 1 2908 1 2867 1 2827 1 2827 1 2786 1 2746 1 2766 1 2665 1 2625 1 2585	12944 12904 12863 12823 12782 12742 12742 12661 12621 12621	12940 12900 12859 12819 12778 12738 12657 12657 12617
630.0 631.0 632.0 633.0 633.0 635.0 636.0 637.0 638.0 639.0	12573 12493 12453 12413 12413 12333 12333 12253 12253 12214	12569 12489 12489 12409 12369 12389 12289 12210	125485 124455 124405 12325 12325 12325 12326 12326 12326	12561 12521 12481 12441 12401 12361 12361 12281 12281 12242	12557 12517 12477 12437 12397 12357 12317 12277 12238 12198	12553 12513 12473 12433 12393 12313 12313 122234 12194	12549 12569 12469 12429 123349 123369 12230 12230	12545 12505 12465 12485 12345 12345 12345 12266 12186	12541 12501 12421 12381 12341 12361 12261 12222 12182	12537 12497 12457 12417 12377 12337 12297 12257 12218 12178
640.0 641.0 642.0 643.0 643.0 645.0 646.0 647.0 649.0	12174 12135 12095 12056 12016 11977 11937 11859 11859	12170 12131 12091 12092 12012 11973 11933 11894 11855 11816	12166 12127 12087 12088 12008 11969 11929 11890 11851 11812	12162 12123 12083 12084 12004 11965 11926 11886 11887 11808	12158 12119 12079 12040 12000 11961 11922 11882 11843 11804	12154 12115 12075 12036 11996 11957 11918 11878 11839 11800	12150 12111 12071 12032 11992 11953 11914 11874 11835	12146 12107 12067 12028 11988 11949 11910 11871 11831	12142 12103 12063 12024 11985 11945 11946 11867 11827 1188	12139 12099 12059 12050 11981 11941 11902 11863 11824 11784
650.0 651.0 652.0 653.0 653.0 655.0 656.0 657.0 658.0 659.0	11780 11741 11702 11663 11624 11585 11547 11508 11469 11430	11777 11737 11698 11659 11620 11582 11543 11504 11465 11426	11773 11734 11694 11655 11617 11578 11539 11530 11461 11423	11769 11730 11691 11652 11613 11574 11535 11496 11457	11765 11726 11687 11688 11609 11570 11531 11492 11454 11415	11761 11722 11683 11644 11605 11566 11527 11488 11450 11411	11757 11718 11679 11640 11601 11562 11523 11485 11446 11407	11753 11714 11675 11636 11597 11558 11519 11481 11442 11403	11749 11710 11671 11632 11593 11554 11516 11477 11438 11399	11745 11706 11667 11628 11589 11550 11512 11473 11434 11395
660.0 661.0 662.0 663.0 664.0 665.0 666.0 667.0 669.0	11392 11353 11314 11276 11237 11199 11161 11122 11084 11046	11388 11349 11311 11272 11234 11195 11157 11118 11080 11042	11384 11345 11307 11268 11230 11191 11153 11155 11076 11038	11380 11341 11303 11264 11226 11187 11149 11111 11072 11034	11376 11338 11299 11261 11222 11184 11145 11107 11069 11030	11372 11334 11295 11257 11218 11180 11141 11103 11065 11027	11368 11330 11291 11253 11214 11176 11138 11099 11061 11023	11365 11326 11287 11249 11211 11172 11134 11095 11057	11361 11322 11284 11245 11207 11168 11130 11092 11053 11015	11357 11318 11280 11241 11203 11164 11168 11088 11050
670.0 671.0 672.0 673.0 673.0 675.0 676.0 677.0 678.0 679.0	1100B 10969 10931 10893 10855 10817 10779 10741 10704	11004 10966 10927 10989 10851 10813 10776 10738 10700 10662	11000 10962 10924 10924 10848 10848 10810 10772 10734 10696 10658	10996 10958 10950 10982 10844 10806 10730 10692 10654	10992 10954 10916 10878 10840 10802 10726 10726 10688 10651	10988 10950 10912 10874 10836 10798 10760 10722 10685 10647	10985 10947 10908 10870 10832 10794 10757 10719 10681 10643	10981 10943 10905 10867 10829 10791 10753 10715 10677	10977 10939 10901 10863 10825 10787 10749 10711 10673	10973 10935 10897 10859 10821 10783 10745 10707 10670
680.0 681.0 682.0 683.0 683.0 685.0 686.0 687.0 689.0	1062B 10553 10515 10515 1047B 10440 10403 1032B 1032B	10624 10587 10549 10549 10474 10476 10399 10361 10324 10287	10621 10583 10585 10508 10473 10395 10358 10383	10617 10579 10541 10504 10466 10429 10391 10354 10317	10613 10575 10575 10500 10463 10425 10350 10350 10313 10275	10609 10572 10572 10496 10496 10459 10421 10346 10309 10272	10605 10530 10530 10493 10455 10418 10380 10343 10305	10602 10564 10526 10489 10451 10414 10376 10339 10302	10598 10560 10523 10485 10448 10410 10373 10335 10298 10261	10594 10556 10519 10481 10444 10406 10369 10331 10294
690.0 691.0 692.0 693.0 693.0 695.0 695.0 696.0 697.0 698.0	10253 10216 10179 10141 10104 10067 10030 9993 9956 9919	10249 10212 10175 10138 10101 10064 10026 9990 9953 9916	10246 10208 10171 10134 10097 10060 10023 9986 9949 9912	10242 10205 10167 10130 10093 10056 10056 10982 9945 9908	10238 10201 10164 10127 10089 10052 10055 9978 9941 9905	10234 10197 10160 10123 10086 10049 10012 9975 9938 9901	10231 10156 10156 10119 10085 10008 9971 9934 9897	10227 10190 10153 10115 10078 10041 10004 9967 9930 9894	10223 10186 10149 10112 10075 10038 10001 9964 9927 9890	10220 10182 10145 10146 10071 10034 9997 9986 9923 9886
700.0 701.0 702.0 703.0 704.0 705.0 706.0 707.0 709.0	9882 9846 9809 9772 9735 9699 9662 9626 9589	9879 9842 9805 9732 9695 9652 9589 9589	9875 9838 9802 9765 9768 9691 9658 9582 9585	9871 9835 9798 97761 9724 9688 9651 9615 9578 9542	9868 9831 9794 9757 9721 9684 9611 9574 9538	9864 9827 9750 9754 9717 9680 9644 9607 9571	9860 9824 9787 9750 9713 9677 9640 9567 9531	9857 9820 9783 9746 9710 9673 9600 9564 9527	9853 9816 9779 9743 9706 9669 9633 9596 9550	9849 9813 97739 9702 9666 9629 9593 9556 9520
710.0 711.0 712.0 713.0 713.0 715.0 716.0 716.0 717.0 718.0 719.0	9516 9480 9443 9407 9371 9335 9298 9262 9226 9190	9512 9476 9440 94403 9367 9331 9295 9259 9222 9186	9509 9472 9436 94364 9364 9327 9291 9255 9219 9183	9505 9469 9432 9396 9360 9324 9287 9251 9215 9179	9502 9465 9429 93356 9356 9320 9284 9212 9176	9498 9462 9462 9389 9353 9316 9280 9244 9208 9172	9494 9458 9458 9385 9349 9313 9277 9240 9204 9168	9491 9454 9418 9382 9345 9309 9273 9237 9201 9165	9487 9451 9414 9378 9342 9306 9269 9233 9197 9161	9483 9447 9411 9374 9338 9302 9230 9194 9158

TABLE IX - Continued

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
720.0 721.0 722.0 723.0 723.0 725.0 725.0 725.0 727.0 728.0 729.0	9154 9118 9082 9046 9010 8974 8933 8867 8831	9150 9114 90742 9007 8971 8839 8864 8828	9147 9111 9075 9073 9003 8967 8931 8896 8860 8824	9143 9107 9071 9035 8999 8964 8928 8892 8856 8821	9140 9104 9062 9032 8996 8960 8984 8889 8853 8817	9136 9100 9064 90922 8956 8985 88849 8849	9132 9096 9065 9089 8953 8911 8846 8810	9129 9093 9057 90521 8949 8918 8842 8846	9125 9089 9053 9012 8946 8914 8839 8803	9122 9086 90514 8978 89426 89871 8835 8799
730.0 731.0 732.0 733.0 734.0 735.0 736.0 737.0 737.0 738.0 739.0	8796 8760 87625 8689 8654 8618 8583 8547 8477	8792 87521 87686 86515 86515 8579 85549 8549	8783 87518 8682 86411 8576 85405 8470	8785 87514 8678 86478 86408 8572 8532 8532 8466	8782 8740 8675 8639 8569 8569 85498 8463	8778 87427 8671 8636 8536 8565 85394 8459	8774 8739 8768 86639 85626 85626 8496	8771 87700 87664 86629 85558 8558 85487 8452	8772 8696 86691 86625 85559 85519 84449	8764 8728 86957 86522 8586 85516 8485 8445
740.0 741.0 742.0 743.0 743.0 745.0 746.0 747.0 748.0 749.0	8442 8406 8371 8336 8301 8231 8196 8196 8126	8438 8403 8333 8298 8298 8227 8158 8158	8435 8399 8399 8329 8229 8229 8224 8189 81154 8119	8431 83961 8326 8295 8295 8255 8220 81851 8116	8428 83927 8352852 82852 82157 82187 811827	8424 8389 8319 8319 8283 8248 8213 8174 8109	8420 83350 83315 83285 82215 82175 81175 81105	8417 8382 8312 8312 8276 8206 81737 8102	8413 83743 8308 8208 8273 8203 8163 8163 8098	8410 8375 83405 8269 8234 8195 8130 8095
750.0 751.0 752.0 753.0 753.0 755.0 756.0 757.0 758.0 759.0	8091 8056 8022 7987 7952 7918 7883 7848 7814 7779	8088 8053 8013 7983 7949 7919 7845 7840 7776	8084 8049 8015 7985 7945 7911 7876 7841 7807 7772	8081 8046 8011 7976 7942 7907 7873 7838 7803 7769	8077 8043 80043 7938 7938 7969 7869 7834 7860	8074 8039 8004 7970 7935 7900 7866 7831 7796 7762	8070 8036 8001 7966 7931 7892 7862 7828 7758	8067 8032 79963 7928 7893 7859 7824 7755	8063 8029 7999 7959 7924 7890 7855 7821 7786 7752	8060 7990 7956 7951 7886 7852 7813 7748
760.0 761.0 762.0 763.0 764.0 765.0 766.0 767.0 768.0 769.0	7745 7710 7676 7641 7607 7573 7539 7504 7470 7436	7741 7707 7672 7638 7604 7569 7535 7501 7467 7433	7738 7703 7669 7635 7600 7566 7532 7497 7463 7429	7734 7700 7666 7631 7597 7563 7528 7494 7460 7426	7731 7696 7662 7628 7559 7559 7525 7491 7456 7422	7727 7693 7659 7624 7556 7551 7487 7483 7419	7724 7690 7655 7621 7552 7518 7484 7450 7415	7721 7686 7652 7617 7583 7549 7515 7480 7446 7412	7717 7683 7648 7614 7580 7541 7511 7473 7409	7714 7679 7645 7611 7576 7542 7508 7474 7439 7405
770.0 771.0 772.0 773.0 773.0 775.0 776.0 777.0 778.0 778.0	7402 7368 7334 7300 7266 7232 7198 7164 7130 7096	7398 7364 7336 7296 7262 7268 7194 7161 7161 71093	7395 7361 7327 7293 7259 7225 7191 7157 7153 7090	7392 7357 7323 7289 7255 7222 7188 7154 7120 7086	7388 7354 7350 7286 7252 7218 7184 7150 7117	7385 7351 7317 7283 7289 7215 7181 7147 7113	7381 7347 7313 7279 7245 7211 7177 7144 7110 7076	7378 7344 7310 7276 7242 7208 7174 7140 7106 7073	7375 7340 7306 7272 7238 7205 7171 7137 7103 7069	7371 7337 7303 7269 7235 7201 7167 7133 7100 7066
780.0 781.0 782.0 783.0 784.0 785.0 786.0 787.0 788.0 789.0	7062 7029 6995 6961 6928 6894 6861 6827 6794 6760	7059 7025 69958 6924 6857 6824 6757	7056 7022 6988 6955 6987 6887 6854 6820 6787	7052 7019 6985 69518 6884 6851 6817 6784 6750	7049 7015 6982 6944 6881 6847 6814 6780 6747	7046 7012 6978 6945 6911 6877 6844 6810 6777 6743	7042 7009 6975 6941 6908 6874 6840 6807 6773 6740	7039 7005 6971 6938 6904 6871 6837 6804 6770 6737	7035 7002 6968 6934 6901 6867 6834 6800 6767 6733	7032 6998 6965 6898 6864 6830 6763 6763
790.0 791.0 792.0 793.0 793.0 795.0 796.0 797.0 798.0 799.0	6727 6693 6660 6627 6593 6560 6527 6494 6461 6427	6723 6690 66523 6590 65957 65524 64957 6457	6720 6687 6653 66587 6553 6553 6550 6487 6454 6421	6717 6683 6650 6617 6583 6550 6517 6484 6451 6417	6713 6680 6647 6613 6580 6547 6514 6447 6447	6710 6677 6643 6610 6517 6543 6510 6477 6444 6411	6707 6673 6640 6607 6573 6540 6507 6474 6441 6408	6703 6670 6637 6603 6570 6537 6504 6470 6437 6404	6700 6667 66630 6567 65507 65507 6464 6401	6697 6663 6630 6597 6563 6530 6497 6494 6398
800.0 801.0 802.0 803.0 805.0 805.0 806.0 807.0 808.0	6394 6361 6328 6295 6295 6229 6196 6164 61631 6098	6391 6358 6358 6292 6259 6259 62193 6168 6168	6388 6355 6322 6289 6256 6223 6190 6157 6124 6091	6384 6351 6318 6285 6252 6220 6187 6154 6188	6381 6348 6315 6282 6249 6213 6113 6151 6085	6378 6345 6312 6279 6246 6213 6180 6147 6114 6082	6374 6341 6308 6275 6243 6217 6117 6141 6078	6371 6338 6305 6272 6239 6173 6141 6108	6368 6335 6269 62636 6270 6170 6105	6365 6332 6299 6266 6233 6200 6167 6134 6101 6069
8112.0 813.0 813.0 815.0 815.0 815.0 817.0 817.0	6065 60033 6000 5967 5935 5902 5869 5837 5804 5772	6062 5997 5994 5931 5899 5864 5801 5869	6059 6026 5993 5961 5928 5895 5863 5830 5798 5765	6055 6023 59957 5955 5892 58960 5827 5795 5762	60197 5984 59522 5859 5854 5854 5759 58791	6016 5984 59518 59518 5886 5828 5756	6013 5988 59915 5885 5815 5815 5752	60177 59912 59879 58879 58879 58182 57749	6039 6036 5974 5948 5876 5841 5778 5778	60036 59938 59935 5873 58408 57743

P, mb	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
820.0 821.0 822.0 823.0 824.0 825.0 826.0 827.0 827.0	5740 5707 5675 5642 5610 5578 5546 5513 5481 5449	5736 5704 5672 5637 55675 5510 5510 5478 5446	5733 5701 5668 5636 5636 5571 5539 55475 5443	5730 5697 5665 5633 5600 5568 5536 5534 5472 5439	5727 5694 5662 5629 5597 5565 5533 5501 5468 5436	5723 5691 5659 55596 55592 5582 55495 54433	5720 5685 5685 55598 55558 5554 54460	5717 56842 56520 5588 55555 55521 54521 54527	5714 57649 576649 555555 5555208 5555208 554453	5710 5678 5646 5513 55849 5517 5484 5452
830.0 831.0 832.0 833.0 834.0 835.0 836.0 837.0 838.0	5417 53853 53251 5289 52255 51931 51129	531518 533518 53318522 532229 51152 51152	5418 5378 53144 5282 52219 5187 51187 51183	5407 53375 53374 53311 52279 5215 5183 5183 51120	54042 553740 553048 52274 552180 51180 5117	5401 5369 53637 5305 5273 5209 5177 51145 5113	5398 5366 53324 53020 5270 52206 51742 5110	5394 5362 5330 5298 5266 5203 5171 5107	5391 53597 53295 522631 52199 5168 5104	5388 5356 5324 5292 5260 5228 5196 5164 5133
840.0 841.0 842.0 843.0 844.0 845.0 845.0 846.0 847.0	5098 5066 5032 4971 4939 4976 4876 4813	5094 5063 5031 4999 4967 4936 4904 4873 4881	5091 5059 5059 5028 4996 4964 4933 4901 4869 4869 4806	5088 5056 5056 4993 4961 4929 4898 4866 4835 4803	5085 5083 5083 5992 49958 49958 4883 4883 4883 4800	5082 50508 5018 4986 4955 4923 4892 4860 4828 4797	5078 50415 50415 4982 4982 4988 4888 4888 4885 4879	5075 5044 5012 4980 4947 4885 4855 4852 4791	5072 5040 5040 4977 4945 4914 4882 4850 4819 4787	5069 50037 5005 4974 4942 4879 4847 4816 4784
850.0 851.0 852.0 853.0 854.0 855.0 855.0 855.0 857.0	4781 4750 4718 4687 4655 4624 4593 4561 4530 4439	4778 4747 4715 4684 4682 4621 4558 4558 4596	4775 4773 47742 4681 4689 4618 4555 4555 4593	4772 4740 4707 4646 4615 45183 45521 4490	4769 4737 4706 4674 4643 4612 4580 4549 4518 4587	4765 4734 4703 4671 4640 4608 4577 4546 4515 4483	4762 4731 4699 4668 4637 4605 4574 4574 4543 4541 4480	4759 4728 4695 4665 4634 4602 4571 4540 4508 4477	4756 4725 4693 46630 4598 4536 4536 4574	4753 4721 4690 4659 4627 4565 4533 4502 4471
860.0 861.0 862.0 863.0 864.0 865.0 865.0 867.0 868.0	4468 4437 4405 4374 4343 4312 4281 4250 4219 4188	4465 4433 4402 4371 4340 4309 4278 4247 4216 4185	4462 4430 4399 4368 4337 4306 4275 4244 4213 4182	4458 4427 4396 4334 4334 4303 4272 4241 4210 4179	4455 4424 4393 4362 4331 4300 4269 4238 4237 4176	4452 4421 4390 4358 4297 4266 4204 4173	4449 4418 4386 4355 4294 4263 4231 4270	4446 4415 4384 4353 4252 4290 4259 4259 4198 4167	4443 4412 4381 4349 43187 42256 4229 4164	4440 4409 4377 4346 4315 4284 4253 4222 4191 4160
870.0 871.0 872.0 873.0 874.0 875.0 876.0 876.0 877.0	4157 4126 4096 4095 4034 4003 3972 3942 3988	4154 4123 4092 4031 4069 3969 3939 3939 3877	4151 4120 4089 4059 4028 3997 3966 3936 3936 3974	4148 4117 4086 4025 3953 3933 3933 3902 3871	4145 4114 4083 4052 4052 3991 3960 3939 3868	4142 4111 4080 4049 4019 3988 3957 3956 3896	4139 4108 4007 4046 4016 3985 3954 3923 3823 3862	4136 4105 4074 4043 4012 3982 3951 3951 3890 3859	4133 41021 4071 4040 40079 3978 3917 3856	4130 4099 4068 4037 4006 3976 3945 3914 3884 3853
880.0 881.0 882.0 883.0 884.0 885.0 885.0 886.0 887.0	3850 3819 3789 3758 3728 3697 3667 3636 3636	3847 3816 3786 3755 3725 3694 3633 3633 3633	3844 3813 3783 3752 3721 3661 3630 3630 3659	3841 3810 3779 3749 3718 3658 3658 3657 3597	3838 3807 3776 3746 3715 3685 3654 3654 3594 3563	3835 3804 3773 3743 3712 3682 3651 3651 3651 36591	3831 3801 3770 3740 3769 3648 3618 3558 3557	3828 3798 3767 3737 3706 3676 3645 3645 3585	3825 3795 3764 3734 3703 3642 3642 3581 3551	3822 3792 3761 3731 3700 3670 3639 3609 3578 3548
890.0 891.0 892.0 893.0 894.0 895.0 895.0 896.0 898.0	3545 3515 3484 3454 3454 3394 3333 3333 3373	3542 3512 3481 3451 3421 3321 3330 3330 3270	3539 3509 3478 3448 3418 3358 3358 3327 3227	3536 3506 3475 3445 3415 3355 3355 3324 3294 3264	3533 3503 3472 3442 3442 33412 3351 3351 3351 3291 3261	3530 3500 3469 3439 3479 3379 3348 3318 3288 3258	3527 3497 3436 3436 33476 3345 3315 3315 3255	3524 3494 3463 3463 3403 3373 3312 3312 3282 3282	3521 3491 3460 3430 3470 3379 3339 3309 3279 3249	3518 3487 3457 3457 3397 3367 3336 3276 3246
900.0 901.0 902.0 903.0 904.0 905.0 905.0 907.0 909.0	3243 3213 3183 3153 3153 3093 3093 3063 3003 2974	3240 3210 3180 3150 3150 3090 3060 3030 3000 2971	3237 3207 3177 3147 3147 3087 3057 3057 3057 3027 2928 2968	3234 3204 3174 3144 3114 3084 3054 3054 2995 2965	3231 3201 3171 3141 3111 3081 3051 3051 3021 2992 2962	3228 3198 3168 3138 3178 3078 3048 3048 2989	3225 3195 3165 3135 3105 3075 3045 3015 2986 2956	3222 3192 3162 3132 3102 3072 3042 3012 2983	3219 3189 3159 3159 3099 3069 3009 2980 2950	3216 3186 3156 3126 3096 3066 3036 3006 2977 2947
910.0 911.0 912.0 913.0 913.0 915.0 916.0 916.0 919.0	2944 2914 2884 2855 2855 2795 2766 2766 2706 2677	2941 2911 2881 2852 2852 2792 2763 2763 2703 2674	2938 2908 2878 2849 2819 2789 2730 2730 27700 2671	2935 2905 2875 2846 2816 2786 2757 2757 2697 2668	2932 2902 2872 2843 2813 2783 2754 2754 2694 2665	2929 2899 2869 2810 2780 2751 2751 2662	2926 2896 2866 2807 2807 2777 2774 2718 2689 2659	2923 2893 2863 2864 2804 2774 2774 2715 2686	2920 2890 2861 2831 2801 2771 2774 2712 2683 2653	2917 2887 2858 2858 2769 2739 2769 2650

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TABLE IX - Concluded

P, mb	0	ı	2	3	4	5	6	7	8	9
1200. 1210. 1220. 1230. 1250. 1250. 1260. 1270. 1290.	-4757 -4994 -5236 -5464 -5697 -5928 -6158 -6386 -6613 -6838	-4781 -5018 -5254 -548 -5720 -5951 -6181 -6409 -6635 -6861	-4805 -5042 -5277 -5511 -5743 -5974 -6204 -6432 -6658 -6883	-4829 -5065 -5301 -5534 -5767 -5997 -6227 -6454 -6681 -6905	-4852 -5089 -5324 -5558 -5790 -6020 -6249 -6703 -6928	-4876 -5113 -5348 -55813 -5043 -6272 -65726 -6950	-4900 -5136 -5371 -5604 -5836 -6066 -6295 -6522 -6748 -6973	-4923 -5160 -5394 -5627 -5659 -6318 -6518 -6571 -6995	-4947 -5183 -5418 -5651 -5882 -6112 -6341 -6568 -6793 -7017	-4971 -5207 -5441 -56745 -6135 -6363 -6590 -6816 -7040
1300 1310 1320 1330 1340 1350 1360 1370 1380	-7062 -7285 -7506 -7725 -7944 -8161 -8377 -8595 -8605	-7084 -7307 -7528 -7747 -7966 -8183 -8398 -8613 -8626 -9038	-7107 -7329 -7550 -7769 -7987 -8204 -8420 -86347 -9059	-7129 -7351 -7572 -7791 -8009 -8226 -8441 -8656 -8868 -9080	-7151 -7373 -7594 -7813 -8031 -8248 -8463 -8677 -8890 -9101	-7173 -7395 -7616 -7835 -8053 -8269 -8484 -8691 -8911	-7196 -7417 -7638 -7857 -8074 -8291 -8506 -8720 -8932 -9143	-7218 -7440 -7660 -7667 -8096 -8312 -8527 -8541 -8953 -9164	-7240 -7462 -7682 -7682 -7900 -8118 -8334 -8549 -8762 -8974 -9186	-7262 -7484 -7704 -7922 -8139 -8355 -8570 -8783 -8796 -9207
1400 • 1410 • 1420 • 1430 • 1450 • 1460 • 1470 • 1490 • 1490 •	-9228 -9437 -9636 -9853 -10059 -10264 -10467 -10672 -11072	-9249 -9458 -9666 -9873 -10079 -10284 -10488 -10692 -11092	-9270 -9487 -9687 -9894 -10100 -10305 -10508 -10712 -11112	-9291 -9500 -9708 -9915 -10125 -10325 -10528 -10732 -11132	-9312 -9529 -9729 -9935 -10145 -10549 -10752 -11152	-9333 -9542 -9749 -9956 -10166 -10366 -10569 -10771 -10972 -11172	-9354 -9562 -95770 -9977 -10186 -10589 -10792 -11192	-9374 -9583 -9591 -9997 -10202 -10406 -10609 -10811 -11012 -11212	-9395 -9604 -9811 -10018 -10223 -10427 -10631 -10831 -11032 -11232	-9416 -9625 -9832 -10038 -10243 -10447 -10651 -11052 -11251
1500. 1510. 1520. 1530. 1550. 1560. 1570. 1570. 1590.	-11271 -11470 -11667 -11863 -12058 -12252 -12445 -12637 -13018	-11291 -11489 -11686 -12077 -12271 -12464 -12654 -13037	-11311 -11509 -11706 -11902 -12991 -12484 -12666 -13056	-11331 -11529 -11726 -11922 -12110 -12503 -126985 -13075	-11351 -11549 -11745 -11941 -121329 -12522 -12522 -12704 -13094	-11371 -11568 -11765 -11961 -121349 -12541 -12733 -12923 -13113	-11390 -11588 -11585 -11980 -12175 -12368 -12560 -12752 -13132	-11410 -11608 -11804 -12000 -12194 -12387 -12580 -12771 -12961 -13151	-11430 -11627 -11824 -12019 -12213 -12407 -12599 -12790 -12980 -13170	-11450 -11647 -11843 -12039 -12233 -12426 -12618 -12809 -12999 -13189
1600 • 1610 • 1620 • 1630 • 1650 • 1650 • 1670 • 1650 • 16	-13208 -13396 -13583 -13769 -13955 -14139 -14323 -14505 -14687 -14688	-13226 -13414 -13602 -13788 -13973 -14157 -14341 -14524 -14705 -14886	-13245 -13433 -13620 -13806 -13992 -14176 -14359 -145423 -14904	-13264 -13452 -13639 -13825 -14010 -14194 -14378 -14560 -14561 -14922	-13283 -13471 -13658 -13843 -14029 -14213 -14396 -14576 -145760 -14940	-13302 -13489 -13676 -13862 -14047 -14231 -14414 -14578 -14778 -14958	-13321 -13595 -13695 -13881 -14065 -14432 -14614 -14676	-13339 -13527 -13527 -13713 -13899 -14084 -14451 -14633 -14614 -14994	-13358 -13546 -13546 -13718 -1492 -14402 -14486 -144651 -14832 -15012	-13377 -13564 -13751 -13936 -14121 -14304 -14467 -14669 -15030
1700. 1710. 1720. 1730. 1740. 1750. 1760.	-15048 -15227 -15406 -15583 -15786 -15936 -16111 -16285	-15066 -15245 -15423 -15601 -15777 -15953 -16128 -16302	-15084 -15263 -15441 -15619 -15795 -157971 -16146 -16320	-15102 -15281 -15459 -15636 -15813 -15988 -16163 -16337	-15120 -15299 -15477 -15654 -15830 -16006 -16180 -16354	-15138 -15317 -15494 -15672 -15848 -16023 -16198 -16372	-15156 -15334 -15512 -15689 -15685 -16041 -16215 -16389	-15174 -15352 -15530 -15707 -15883 -16058 -16233 -16406	-15191 -15370 -15548 -15725 -15901 -16076 -16250	-15209 -15388 -15565 -15742 -15918 -16093 -16268

Table X GEOPOTENTIAL ALTITUDE IN FEET AS A FUNCTION OF PRESSURE IN INCHES OF MERCURY

GEOPOTENTIAL ALTITUDE IN FEET as a function of PRESSURE IN INCHES OF MERCURY

P, in. Hg	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
•250 •260 •270 •280 •290	104674 103846 103049 102281	104590 103765 102971 102206	104506 103685 102894 102131	104423 103604 102816 102056	104339 103524 102739 101982	104256 103444 102662 101907	105015 104174 103365 102585 101833	104929 104091 103285 102509 101760	104844 104009 103206 102433 101686	104759 103928 103128 102357 101613
.300 .310 .320 .330 .340 .350 .360 .370 .380 .390	101540 100824 100131 99460 98809 98178 97565 96970 96391 95827	101467 100753 100063 99394 98745 98116 97505 96914 96314 95772	101395 100683 99995 99328 98681 98054 97445 96853 96277 95716	101322 100613 99927 99262 98618 97993 97385 96795 96220 95661	101250 100544 99860 99197 98555 97931 97325 96737 96164 95606	101179 100474 99792 99132 98491 97870 97266 96679 96177 95551	101107 100405 99725 99725 99067 98428 97808 97206 96621 96051 95496	101036 100336 99659 99602 98366 97747 97147 96563 95995 95442	100965 100267 99592 98598 98303 97687 97088 96506 95939 95387	100894 100199 99526 98873 98240 97626 97029 96448 95883 95333
.400 .410 .420 .430 .4450 .450 .470 .480	95278 94743 94222 93713 93216 92730 92255 91791 91337 90893	95224 94691 94170 93162 93166 92209 91745 91292 90849	95170 94638 94119 93612 93117 92634 92162 91700 91248 90805	95116 94586 94586 93562 93569 92115 91654 91203 90761	95063 94533 94533 94512 93512 93520 92569 91658 91158 90718	95009 94481 93463 93463 92971 92022 91563 91114 90674	94956 94429 93915 93413 92923 92923 91976 91518 91070 90631	94902 94377 93864 93363 92874 92397 91929 91472 91025 90587	94849 94325 93314 92826 92883 91883 91981 90544	94796 94273 93763 93265 92778 92302 91837 91382 90937 90501
.500 .510 .520 .530 .540 .5560 .5570 .580	90458 90031 89614 89204 88802 88408 88021 87642 87642 86902	90415 89989 899872 89164 88763 88783 87983 87604 87604 87632	90372 89947 89531 89123 88123 88330 87945 87595 87595	90329 89905 89493 88683 88683 887907 87529 87529 86794	90286 89863 898649 890442 88644 881269 87492 87492 86758	90243 89822 89402 88604 88604 887831 87454 87454 86722	90201 89780 89367 88962 88565 88175 87417 8748 86686	90158 89738 89326 88922 88526 88137 87755 87380 87012 86650	90116 89697 89285 88882 88487 887717 87343 86614	90074 89655 89245 88842 888447 88060 87679 87306 86939 86578
.600 .610 .620 .630 .640 .650 .650 .670	86542 86188 85840 85498 85498 84830 84504 84183 84508 84508 84508	86507 86153 85806 85464 85128 84771 84151 831835 83524	86471 86118 85771 85430 85095 84764 84439 84119 83804 83493	86435 86083 85737 85396 85061 84731 84407 84087 83772 83462	86400 86048 85703 85363 85368 84699 84375 84056 83741 83432	86365 86014 85668 85329 84995 84666 84343 84024 83710 83401	86329 85979 85634 85295 84962 84634 84310 83992 83679 83370	86294 85944 85600 85262 84929 84601 84278 83961 839648 833648	86259 85909 85566 8528 84896 84569 84246 83927 83309	86223 85875 85532 851963 84536 84214 83898 83279
.700 .710 .720 .730 .740 .750 .760 .770 .780	83248 82946 82648 82354 81778 81497 81219 80674	83218 82916 82916 82325 82335 81469 81191 80917 80647	83187 82886 82589 82297 81722 81441 81164 80890 80620	83157 82856 82559 82267 81978 81694 81413 81136 80863 80593	83127 82826 82530 82537 81949 81665 81385 81109 80836 80566	83096 82796 82508 82508 81921 81921 81357 81357 81089 80540	83066 82766 82471 82180 81892 81609 81329 81054 80782 80513	83036 82737 82442 82151 81864 81581 81302 81026 80754 80486	83006 82707 82412 82122 81835 81553 81274 80999 80728 80460	82976 82677 82383 82093 81807 81525 81246 80972 80701 80433
.800 .810 .820 .830 .8450 .860 .870 .880 .890	80406 80143 79882 79625 79371 79120 78672 78627 78385 78146	80380 80116 79896 79599 79346 79095 78847 78603 78361 78122	80353 80090 79831 79321 79321 79070 78823 78578 78337 78098	80327 80064 79548 79545 79295 79295 78798 78554 78313 78074	80301 80038 79779 79523 79270 79020 78774 78530 78289 78051	80274 80012 79758 79495 78245 78749 78506 78265 78027	80248 79986 79728 79472 79420 78971 78725 78482 78241 78003	80221 79960 79702 79702 79447 79195 78946 78700 78457 78457 78217	80195 79934 79676 79676 79170 78921 78676 78433 78193 77956	80169 79908 79651 79396 79145 78897 78651 78409 78170 77933
.900 .910 .920 .930 .940 .950 .960 .970 .980	77909 77675 77444 77216 76989 76766 76544 76326 76109 75895	77886 77652 77421 77193 76967 76744 76522 76304 76087 75873	77862 77629 77398 77170 76944 76721 76501 76282 76066 75852	77839 77606 77375 77147 76922 76679 76479 76260 76044 75831	77815 77583 77352 77155 76900 76677 76457 76239 76023 75810	77792 77559 77330 77102 76877 76655 76435 76217 76002 75788	77769 77536 77336 77380 76855 76633 76413 76195 75980 75767	77745 77513 77284 77057 76833 76611 76391 76174 75959 75746	77722 77490 77261 77034 76810 76589 76369 76152 75937 75725	77699 77467 77238 77018 76188 76567 76347 76131 75916 75704

P, in. Hg	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
1.000 1.010 1.020 1.030 1.040 1.050 1.060 1.070 1.080 1.090	75683 75473 75265 75059 74856 74654 74454 74256 74061 73867	75662 75452 75244 75035 74634 74434 74237 74041 73847	75640 75431 75224 75018 74815 74614 74414 74217 74022 73828	75619 75410 75203 74998 74795 74594 74395 74197 74002 73809	75598 75389 75182 74977 74977 74574 74375 74375 74378 73983	75577 75369 75162 74954 74954 74554 74355 74158 73963 73770	75556 75348 75141 74934 74734 74534 74335 74139 73944 73751	75535 75327 75121 74916 74714 74514 74316 74316 74315 73925 73732	75515 75306 75100 74896 74694 74494 74296 74100 73905 73713	75494 75286 75080 74876 74674 74474 74276 74080 73886 73693
1 • 1 0 0 1 • 1 1 0 1 • 1 2 0 1 • 1 3 0 1 • 1 4 0 1 • 1 5 0 1 • 1 6 0 1 • 1 7 0 1 • 1 8 0 1 • 1 9 0	73674 73484 73295 73108 72923 72740 72558 72377 72199 72021	73655 73465 73277 73090 72905 72721 72540 72359 72181 72004	73636 73446 73258 73071 72886 72703 72521 72542 72163 71986	73617 73427 73239 73053 72868 72685 72503 72503 72324 72145 71969	73598 73408 7320 73234 72850 72667 72485 72306 72128 71951	73579 73389 73202 73016 72831 72648 72467 72288 72110 71933	73560 73371 73183 72997 72813 72630 72449 72270 72092 71916	73541 73352 73164 72979 72794 72612 72431 72252 72074 71898	73522 73333 73146 72960 72776 72594 72413 72234 72057 71881	73503 73314 73127 72942 72758 72576 72395 72216 72039 71863
1.200 1.210 1.2230 1.2240 1.250 1.260 1.260 1.280 1.290	71846 71672 71499 71328 71158 70990 70823 70657 70493 70330	71828 71654 71482 71311 71141 70973 70806 70640 70476 70313	71811 71637 71465 71294 71124 70956 70789 70624 70460 70297	71793 71620 71447 71277 71277 70939 70773 70607 70444 70281	71776 71602 71430 714360 71090 70923 70756 70591 70427 70265	71 759 71 543 71 413 71 243 71 074 70 906 70 740 70 575 70 411 70 249	71741 71568 71396 71326 71057 70889 70723 70558 70395 70232	71 724 71 551 71 379 71 209 71 040 70872 70706 70542 70378 70216	71 706 71 533 71 362 71 192 71 023 70856 70690 70525 70362 70200	71689 71516 71345 71175 71006 70839 70673 70509 70346 70184
1.300 1.310 1.320 1.330 1.340 1.350 1.360 1.360 1.380 1.390	70168 70007 69848 69690 69534 69378 69224 69070 68918 68768	70152 69991 69832 69675 69518 69208 69208 69053 68753	70136 69975 69817 69859 69502 69347 69193 69040 68888 68737	70120 69959 69801 69643 69487 69332 69178 69025 68873 68722	70103 69944 69945 69627 69471 69316 69162 69010 68858 68707	70087 69928 69969 69612 69456 69301 69147 68843 68693	70071 69912 69753 69596 69440 69285 69132 681379 68828 68678	70055 69896 69738 69580 69425 69270 69116 68964 68813 68663	70039 69880 69722 69565 69409 69254 69101 68949 68798 68648	70023 69864 69706 69549 69394 69239 69086 68934 68783 68633
1.400 1.410 1.420 1.430 1.440 1.450 1.460 1.460 1.480 1.490	68618 68469 68321 68175 68029 67885 67741 67599 67458 67317	68603 68454 68307 68160 68015 67871 67727 67585 67444 67303	68588 68439 68292 68146 68000 67856 67713 67571 67429 67289	68573 68425 68277 68131 681986 679842 67699 67557 67415 67275	68558 68410 68263 68117 67971 67827 67684 67542 67401 67261	68543 68395 68242 68102 67957 67613 67670 67528 67387	68528 68380 68233 68087 67943 67799 67656 67514 67373 67233	68514 68366 68219 68073 67928 67784 67642 67500 67359 67219	68499 68351 68204 68058 67914 67770 67627 67486 67345 67206	68484 68336 68190 68044 67899 67756 67613 67472 67331 67192
1.500 1.510 1.520 1.530 1.5540 1.5550 1.5570 1.580 1.590	67178 67039 66902 66765 66629 66494 66360 66227 66095 65964	67164 67025 66888 66751 66616 66481 66347 66214 66082 65951	67150 67012 66874 66738 66602 66467 66334 66201 66269 65938	67136 66998 66860 66724 66589 66454 66320 66188 66056 65924	67122 66984 66847 66575 66541 66307 66174 66042 65911	67108 66970 66833 66697 66562 66427 66294 66161 66029 65898	67094 66956 66819 66548 665414 66280 66148 66016	67081 66943 66806 66570 66535 66400 66267 66135 66103 65872	67067 66929 66792 66556 66521 66387 66254 66121 65990 65859	67053 66915 66779 66643 66508 66374 66241 66108 65977 65846
1.600 1.610 1.620 1.630 1.650 1.650 1.660 1.660 1.680 1.690	65833 65704 65575 65447 65319 65193 65067 64942 64818 64695	65820 65691 65562 655434 65307 651055 64930 64986 64682	65807 65678 65549 655421 65294 65168 65042 64917 64793 64670	65794 65665 65536 655408 65281 65155 65030 64905 64781 64658	65781 656523 655296 653269 65143 65089 64089 64769 64645	65768 65639 655311 655356 65105 64880 64756 64633	65755 65626 65498 65370 65243 65117 64992 64868 64744 64621	65742 65613 65435 654358 652351 65105 644985 64732 64609	65729 65600 65472 65345 65218 65092 64963 64719 64596	65716 65588 65459 65332 65206 65080 64955 64830 64707 64584
1 • 700 1 • 710 1 • 720 1 • 730 1 • 740 1 • 750 1 • 760 1 • 770 1 • 780 1 • 790	64572 64450 64329 64288 64088 63969 63850 63732 63615 63499	64560 64438 64416 64196 64076 63838 63721 63603 63487	64547 64426 64304 64184 64064 63945 63827 63709 63592 63475	64535 644132 644172 64172 64052 63815 63697 63580 63464	64523 64401 64280 64160 64040 63921 63885 63588 63588	645119 643889 644048 64999 63791 633557 63441	64499 64377 64136 64136 64016 638779 63665 635429	64486 64365 64244 64124 64004 63886 63768 63765 63653 63417	64474 64353 643532 64112 63974 638756 63638 63528	64462 64341 64220 64100 63981 63862 63744 63627 63510 63394
1.800 1.810 1.820 1.830 1.850 1.850 1.860 1.870 1.880 1.890	63383 63267 63153 63039 62925 62813 62700 62589 62478 62368	63371 63256 63127 63127 62914 62889 62578 62467 62357	63360 63244 63130 63903 62990 62678 62567 62456 62346	63348 63233 63118 632891 62891 62779 62667 62555 62445 62335	63336 63221 63107 62993 62880 62768 62656 62544 62434 62324	6325 63219 632986 622869 622645 6225423 62313	63313 63199 63084 62971 62858 62745 62632 62522 62412 62302	63302 63187 63073 62959 62846 62734 62622 62511 62401 62291	63290 63176 63061 62948 62835 62723 62611 62500 62390 62280	63279 63164 63050 62937 62824 62712 62600 62489 62379 62269
1.900 1.910 1.920 1.930 1.940 1.950 1.960 1.960 1.980 1.990	62258 62148 62040 61932 61717 61611 61505 61400 61295	62247 62138 62029 61921 61814 61707 61600 61494 61389 61284	62236 62127 62018 61910 61803 61696 61590 61484 61379 61274	62225 62116 62007 61899 61792 61685 61579 61473 61368 61263	62214 62105 61989 61989 61781 61675 61568 61463 61358 61253	62203 62094 61986 61978 61771 61664 61552 61452 61347 61243	62192 62083 61975 61867 61653 616547 61442 61337 61232	62181 62072 61964 61856 61749 61643 61537 61431 61326 61222	62170 62062 61953 61846 61739 61632 61526 61421 61316	62159 62051 61943 61835 61728 61621 61516 61410 61305 61201

P, in. Hg	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
000 0010 0010 0030 0050 0050 0050 0050 0	61191 61087 60983 60881 60779 60677 60677 60475 60374 60275	61180 61076 60973 60871 60768 60667 60565 60364 60265	61170 61066 60963 60966 60758 60656 60455 60354 60255	61159 61056 60950 60950 60748 60646 60545 60345	61149 61045 60942 60840 60738 60636 60535 60435 60335 60235	61139 61035 60932 60830 60728 60626 60525 60425 60325 60325	61128 61025 60922 60819 60717 60616 60515 60415 60315 60215	61118 61014 60912 60809 60707 60606 60505 60405 60305 60205	61107 61004 60901 60799 60697 60596 60495 60395 60295 60195	61097 60994 60891 60789 60687 60586 60485 60385 60285 60185
2.100 2.110 2.120 2.130 2.140 2.150 2.160 2.170 2.180 2.190	60175 60077 59978 59880 59783 59686 59589 59493 59493 59398	60165 60067 59968 59871 59676 59580 59484 59388 59293	60156 60057 59959 59861 59763 59666 59570 59474 59283	60146 60047 59949 59951 597557 59566 59464 59274	60136 60037 59939 59841 59744 59551 59551 59459 59264	60126 60027 59929 59831 59637 59541 596445 59355	60116 60017 59919 59822 59822 59632 59632 59434 59345	60106 60008 59910 59812 59812 59618 59522 59426 59331 59236	60096 59990 59990 59802 59805 59609 59512 59417 59321	60086 59988 59899 598793 59696 59599 59503 59407 59312 59217
200 2010 2010 2010 2010 2010 2010 2010	59208 59113 59019 58926 58833 58740 58648 58566 58464 58373	59198 59104 59010 58916 58823 58731 58638 58547 58455 58364	59189 59094 59000 58907 58814 58721 586237 586237 588446 58355	59179 59085 58991 58895 58712 58628 58527 58346	59170 59076 58988 58795 58703 58611 58519 58428 58337	59160 59066 58972 58879 58786 58694 58602 58419 58328	59151 59057 58963 58870 58777 58685 58593 58591 58410 58319	59141 59047 58954 58861 58768 58675 58583 58492 58491 58310	59132 59038 58944 58851 58758 58666 58574 58483 58391 58301	59123 59035 58842 588749 58657 588657 588482 5822
3010 3310 2010 2010 2010 2010 2010 2010	58283 58192 58103 58013 57924 57835 57747 57659 575571 57484	58274 58183 58094 58094 57915 57826 57738 57653 57475	58265 58174 58085 57996 57818 57764 57654 57467	58256 58165 58076 57987 57809 57720 57633 57645 57458	58247 58156 58167 57977 57888 57800 57712 57624 57536 57449	58237 58147 58058 57968 57880 57791 57703 57618 57441	58228 58138 58949 57960 57871 57694 57606 57519	58219 58129 58129 587951 577862 577685 57685 57510 57423	58210 58120 58031 57942 57853 57764 57676 57589 57501 57415	58201 58111 58022 57933 57844 57756 57668 57580 57493 57406
4410 4410 4410 4410 4410 4410 4410 4410	57397 57311 57225 57139 57053 56968 56883 56799 56715 56631	57388 57302 57216 57130 57045 56960 56875 56791 56707 56623	57380 57293 57207 57122 57036 56951 56867 56782 56698 56615	57371 57285 57199 57113 57028 56943 56858 56774 56690 56606	57363 57276 57190 57194 57019 56934 56850 56765 56681 56598	57354 57268 57182 57096 57011 56926 56841 56757 56673 56589	57345 57259 57173 57087 57002 56917 56833 56749 56665 56581	57337 57250 57164 57079 56994 56909 56824 56740 56656 56573	57328 57242 57156 57070 56985 56900 56816 56732 56648 56564	57319 57233 57147 57062 56977 56892 56807 56723 56640 56556
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2.600 2.6620 2.6630 2.6650 2.6650 2.6680 2.6690	55732 55652 55672 55493 55414 55335 55257 55179 55101 55024	55644 555644 555485 554328 55249 55171 55016	55716 556557 55557 553477 553320 55241 55163 55086 55008	55708 55649 55549 553312 553314 55156 55001	55700 55541 555462 553304 553304 552148 55148 55970	55692 55612 55533 554575 55296 55218 55140 551603 54985	55684 55604 5554467 55288 552210 55132 554977	55676 55596 55517 55438 555281 55282 555202 5551047 54970	55668 555599 555430 555273 551195 55117 55117 554962	555501 5554243 5554243 5552687 551032 554954
2.700 2.710 2.720 2.730 2.740 2.750 2.760 2.770 2.770 2.790	54947 54870 54793 54717 545641 54565 54489 54414 54264	54939 54965 54785 54709 546537 546582 54407 54432 54435	54878 54878 548701 5446550 5446574 544394 544394 54429	54877 548770 548618 546618 544567 5443917 54242	54839 54762 547686 546810 54535 54459 544389 544309 543235	54908 54831 54755 54679 54627 54527 544377 544377 5427	548747 548747 54459 54549 54444 54439 54429 54429	54893 54816 54740 544588 54512 54432 544362 54428 54282	54885 54808 547560 544584 544509 544357 54427 54420	54877 54872 54642 54642 544597 544227 5443472 541297
200 200 200 200 200 200 200 200 200 200	54190 54116 54042 53968 53895 53892 53749 53676 53676 53532	54183 54108 541034 53961 53887 53814 53742 53669 53525	54175 54101 54027 53954 53880 53887 53734 53662 53517	54168 54094 54090 53946 53873 53870 53727 53654 53510	54160 54086 54012 53939 53866 53793 53720 53647 53575 53503	54153 54079 54005 53931 53958 53712 53648 53568 53496	54145 54071 53998 53924 53951 53778 53705 53633 53561 53489	54138 54064 53990 53917 53844 53771 53698 53626 53553 53481	54131 54057 53983 53989 53836 53763 53691 53618 53546 53474	54123 54049 53976 53902 53829 53756 53683 53611 53539 53467
2.910 2.920 2.930 2.930 2.940 2.950 2.970 2.980 2.990	53460 53388 53317 53246 53175 53104 53034 52894 52894	53453 53381 53310 53239 53168 53097 53027 52987 52887 52817	53445 53374 53303 53232 53161 53090 53020 52950 52880 52810	53438 53367 53295 53224 53083 53013 52943 52873 52803	53431 53360 53288 53217 53147 53076 53006 52936 52866 52796	53424 53351 533281 5332139 533139 532099 522929 5229552789	53417 53345 53274 53203 53132 53062 52922 52922 52922 52782	53410 53338 53267 53196 53125 53055 52915 52915 52845 52775	53403 53331 53260 53189 53048 52978 52978 52838 52768	53395 53324 53253 53182 53181 53041 52901 52831 52761

P, in. Hg	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
3.00 3.10 3.20 3.30 3.40 3.50 3.60 3.70 3.80 3.90	52754 52072 51412 50771 50771 49547 48961 4836 47836	52685 52005 51347 50709 50089 49488 48903 48335 47782 47242	52616 51938 51282 50646 50028 49429 48846 48279 47727 47189	52547 51872 51218 50583 49968 49370 48788 48223 47673 47136	52479 51806 51153 50521 49907 49311 48731 487618 47618 47083	52411 51739 51089 50459 49847 49852 48674 48112 47564 47031	52342 51673 51025 50397 49786 49194 48617 48056 47510 46978	52275 51608 50961 50335 49726 49135 48560 48001 47456 46926	52207 51542 50898 50273 49666 49077 48504 47946 47403 46873	52139 51477 50835 50212 49607 49607 47891 47349 46821
4.00 4.10 4.20 4.30 4.40 4.50 4.60 4.60 4.80 4.90	46769 46255 45754 45756 44786 44318 43861 42976 42547	46717 46205 45704 45216 44739 44232 43816 43369 42932 42504	46665 46155 451568 451682 446926 43771 43326 42889 42462	46614 46104 45106 45120 44645 44180 43726 43281 42846 42420	46562 46053 45557 45572 44598 44134 43681 43237 42803 42378	46511 46003 45508 45024 44551 440551 43636 43176 421760 42335	46459 45953 45459 44976 44504 44504 43592 43150 42177 4229	46408 459410 44928 444458 43947 43106 42672	46357 45851 45861 44881 444411 439502 435063 42632 42630	46306 45803 45313 44833 44365 43906 43458 43019 42589 42168
5.00 5.10 5.20 5.40 5.40 5.60 5.60 5.80 5.80	42126 41714 41310 40914 40525 40143 39768 39400 39038 38683	42085 41674 41270 40875 40487 40106 39731 39364 39002 38647	42043 41633 41230 40836 40448 40068 39694 39327 38967 38612	42002 41592 41191 40797 40410 40410 39657 39291 38931 38577	41961 41551 40758 40372 39920 39620 39895 38895 38542	41919 41511 41111 40719 40333 399583 39583 39218 38860 38507	41878 41471 41072 40680 40295 39918 39547 39182 38824 38472	41837 41431 41032 40641 40257 39510 39510 39146 38437	41796 41390 40993 40602 40219 39843 39473 39110 38753 38402	41755 41350 40953 40954 40181 39806 39437 39074 38718 38368
6.00 6.10 6.20 6.30 6.50 6.50 6.60 6.70 6.90	38333 37989 37651 37318 36990 36668 36350 36037 35728 35423	38298 37955 37617 37285 36958 36636 36318 36006 35698	38264 37921 37584 37252 36925 36925 36287 35975 35667 35363	38229 37887 37550 37519 36893 36572 36256 35944 356332	38195 37853 37517 37186 36861 36224 35913 35906	38160 37819 37484 37153 36828 36828 36193 35882 35882 35575	38126 37785 37450 37121 36196 36476 36162 35851 35545	38092 37752 37417 37417 36764 36445 36130 35814 35514	38057 37718 37384 37382 36732 36413 36099 35484 35182	38023 37684 37351 37023 36700 36382 36068 35759 35453 35152
7.00 7.10 7.20 7.30 7.40 7.50 7.60 7.60 7.70	35122 34823 34529 34527 33949 33664 33382 32103 32827 32553	35092 34794 34499 34208 33920 33635 33354 33075 32799 32526	35062 34764 34470 34179 33892 33607 33326 33047 32772 32499	35032 34735 34441 34150 33863 33579 33298 33090 32744 32472	35002 34705 34412 34121 33834 33551 33270 32992 32717 32445	34972 34676 34382 34093 33806 33522 33242 32964 32690 32418	34942 34646 34353 34064 33777 33494 33214 32937 32662 32391	34912 34617 34324 34035 33749 33466 33186 3299 32635 32364	34883 34587 34295 34066 33721 33438 33158 32608 32337	34853 34558 34266 33978 33692 33410 33130 32854 32580 32310
8.10 8.20 8.30 8.40 8.50 8.60 8.60 8.70 8.90	32283 32015 31750 31487 31227 30970 30715 30715 30212 29964	32256 31988 31724 31461 31202 30944 30690 30437 30187 29939	32229 31962 31697 31435 31176 30919 30664 30162 29915	32202 31935 31671 31409 31150 30893 30639 30387 30137 29890	32175 31909 31645 31383 31124 30868 30614 30362 30113 29865	32149 31882 31618 31357 31098 30842 30588 30387 30088 29841	32122 31856 31592 31331 31073 30817 30563 30312 30063 29816	32095 31829 31566 31305 31047 30791 30538 30538 30038 29792	32068 31803 31540 31279 31021 30766 30513 30262 30013 29767	32042 31776 31514 31253 30996 30740 30487 30237 29989 29743
9.00 9.10 9.20 9.30 9.50 9.50 9.60 9.80	29718 29475 29233 28994 28527 28522 28289 28057 27601	29694 29450 29450 28970 28733 28733 28265 28265 28035 27578	29669 29426 29185 28946 28710 28475 28242 28011 27782 27555	29645 29402 29161 28623 28686 28452 28219 27786 277860 27533	29621 29378 29137 28139 28663 28663 28196 27965 27765 27510	29596 29354 29113 28875 28639 28473 27942 27714 27488	29572 29330 29090 28851 28616 28382 28150 27919 27691 27465	29548 293066 298668 288528 28358 281267 27669 27443	29523 29281 29042 28864 28569 28335 28103 27846 27420	29499 29257 29018 28780 28545 28312 28080 27851 27623 27398
10.00 10.10 10.20 10.30 10.40 10.50 10.60 10.60 10.70 10.80 10.90	27375 27151 26929 26491 26274 26059 25633 25633	27353 27129 26907 26687 266469 26037 2582 25812 25612 25402	27330 27107 26885 26645 26447 26231 26016 25803 25591 25381	27308 27085 26863 266423 26425 26209 25782 25780 25360	27285 27062 26841 26622 26404 261973 255769 25340	27263 27040 26819 26600 26382 26166 25952 25739 25319	27241 27018 26797 26578 26360 26145 25931 259718 25507 25298	27218 26996 26775 26539 26123 25909 25486 25277	27196 26974 26753 265317 265102 25888 25676 25465 25256	27174 26951 26731 265196 26080 25855 25855 25444 25235
11.00 11.10 11.20 11.30 11.40 11.50 11.60 11.70 11.80 11.90	25214 25007 24802 24597 24193 23995 23795 23798 23598 23402	25194 24987 24781 24577 24177 24174 23774 23775 23778 23382	25173 24966 24761 24557 24554 24153 23954 23559 23559 23363	25152 24945 24736 24536 24133 23736 23736 23736 23736 23334	25131 24925 24925 24516 24516 24113 23914 23716 23719 23324	25111 24904 244996 244996 244094 2410994 231090 231005	25090 24884 24476 24474 24974 23874 23676 23285	25069 240639 2444555 2444254 2440854 233466 233466	25049 24843 24638 244235 244233 24033 23835 23837 23441 23246	25028 24822 24618 24415 24413 23815 23815 23422 234227
12.00 12.10 12.20 12.30 12.40 12.50 12.60 12.70 12.80 12.90	23208 23014 22823 22632 22443 22254 22068 21697 21514	23188 22995 22803 22424 22236 22049 21863 21679 21496	23169 22976 22784 22784 22405 22217 22030 21845 21661 21477	23149 22957 22765 22765 22386 22198 22012 21826 21642 21459	23130 22937 22746 22556 22367 22180 21993 21808 21624 21441	23111 22918 22727 22537 225348 22161 21975 219789 21606 21423	23091 22899 22708 22718 22330 22142 219761 21587 21587	23072 22880 22689 22499 22311 22124 21937 21753 21569 21386	23053 22861 22670 22482 22105 21193 21193 21193 21551 21368	23034 228651 224651 22273 22086 219716 21532 21532

TABLE X - Continued

P, in. Hg	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
13.00 13.10 13.20 13.30 13.40 13.50 13.60 13.70 13.80 13.90	21332 21151 20971 20792 20614 20437 20262 20087 19914 19741	21314 21133 20953 20774 20596 20420 20244 20070 19896 19724	21295 21115 20935 20756 20579 20402 20402 20052 19879 19707	21277 21097 20917 20738 20561 20385 2029 20035 19862 19689	21259 21079 20899 20721 20543 20367 20192 20018 19844 19672	21241 21061 20881 20526 20526 20349 20174 20000 19827 19655	21223 21043 20863 20685 20586 20332 20157 19983 19810 19638	21 205 21 025 20 845 20 847 20 490 20 314 20 139 19965 19793 19621	21187 21007 20828 20650 20473 20297 20122 19948 19775 19604	21169 20989 20810 20632 20455 20279 20105 19931 19758 19587
14.00 14.10 14.20 14.30 14.40 14.50 14.60 14.70 14.80 14.90	19569 19399 19229 19061 18093 18726 18560 18560 18232 18068	19552 19382 19312 19044 18876 18710 18544 18379 18215 18052	19535 19365 19195 19027 18860 18693 18527 18363 18199 18036	19518 19348 19179 19010 18843 18676 18511 18346 18182 18020	19501 19331 19162 18993 18826 18660 18494 18330 18166 18003	19484 19314 19145 18977 188079 18643 18478 18313 18150 17987	19467 19297 19128 18960 18793 18627 18461 18297 18134 17971	19450 19280 1921 18943 18776 18610 18445 18281 18117 17955	19433 19263 19924 18926 18759 18593 18428 18264 18101 17939	19416 19246 19277 18910 18743 18577 18412 18248 18085 17922
15.00 15.10 15.20 15.30 15.50 15.60 15.70 15.70	17906 17745 17584 17584 17425 17266 17108 16951 16639 16639	17890 17729 177568 17409 17250 17092 16935 16779 16624 16469	1 78 74 1 77 13 1 75 52 1 73 93 1 72 34 1 70 77 1 69 20 1 67 63 1 60 08 1 64 54	17858 17697 17536 17537 17219 17061 16014 16748 16593 16438	17842 17681 17520 17361 17203 17045 1688 16732 16577 16423	17825 17665 17504 175345 17187 17029 16873 16717 16562 16407	17809 17648 17489 17329 17171 17014 16857 16701 16546 16392	17793 17632 17473 17314 17155 16998 16841 16686 16531	17777 17616 17457 17298 17140 16982 16826 16670 16515 16361	17761 17600 17441 17282 17124 16967 16810 16655 16500 16346
16.00 16.10 16.20 16.30 16.40 16.50 16.60 16.70 16.70 16.90	16331 16177 16025 15873 155722 15572 15423 15274 15274 14979	16315 16162 16010 15858 15707 15557 15408 15259 15112	16300 16147 15995 15843 15692 15393 15245 15097 14950	16284 16132 15979 15828 15677 15527 15378 15378 15380 15082 14935	16269 16116 15964 15962 15513 15563 15215 15067 14920	16254 16101 15949 15747 15647 15498 15349 15300 15053 14906	16239 16086 15984 15983 15632 15483 15334 15334 15138 14891	16223 16071 159768 159768 15617 15468 15319 15171 15023 14877	16208 16055 15753 15752 15453 15453 15156 15109 14862	16193 16040 15888 15738 15587 15438 15141 14994 14847
17.00 17.10 17.20 17.30 17.40 17.50 17.60 17.70 17.80 17.90	14833 14687 14542 14353 14110 13968 13685 13544	14818 14672 14527 14383 14239 14096 13954 13812 13671 13530	14803 14658 14513 14368 14225 14082 13939 13798 13657 13516	14789 14643 14498 144954 14210 14067 13925 13784 13643 13502	14774 14629 14484 14340 14196 14053 13911 13769 13629 13488	14760 14614 14469 14469 14182 14182 14039 13897 13755 13615 13474	14745 14600 14455 14311 14167 14025 13883 13741 13600 13460	14730 14585 14440 14496 14153 14011 13869 13727 13586 13446	14716 14571 14426 144282 14139 13996 13854 13713 13572	14701 14556 14412 14268 14125 13982 13699 13558 13418
18.00 18.10 18.20 18.30 18.40 18.50 18.60 18.70 18.80 18.90	13404 13265 13127 12989 12851 12714 12578 12443 12308 12173	13391 13251 13113 12975 12837 12701 12565 12429 12294 12160	13377 13237 13039 12961 12824 12687 12551 12415 12281 12146	13363 13224 13085 12947 12810 12673 12537 125402 12267 12133	1 3349 1 3210 1 3071 1 2934 1 2796 1 2660 1 25388 1 2254 1 2119	13335 13196 13058 12920 12783 12646 12510 12375 12240 12106	13321 13182 13044 12906 12769 12633 12497 12361 12227 12093	13307 13168 13030 12892 12755 12619 12483 12348 12213 12079	13293 13154 13016 12879 12742 12605 12470 12334 12200 12066	13279 13140 13002 12865 12728 12592 12456 12321 12186 12053
19.00 19.10 19.20 19.30 19.40 19.50 19.60 19.70 19.80 19.90	12039 11906 11773 11641 11509 11378 11248 11118 10988 10859	12026 11893 11760 11628 11496 11365 11235 1110975 10975	12012 11879 11747 11615 11483 11352 11222 110962 10834	11999 11866 11733 11601 11470 11339 11209 11079 10950 10821	11986 11853 11720 11588 11457 11326 11196 11066 110808	11972 11839 11707 11575 11444 11313 11183 11053 10924 10795	11959 11826 11694 11562 11431 11300 11170 111040 10911 10782	11946 11813 11681 11549 11418 11287 11157 11157 11027 10898	11933 11800 11667 11536 11404 11274 11144 11014 10885 10757	11919 11786 11654 11652 11391 11261 11131 11001 10872
20.00 20.10 20.20 20.30 20.50 20.50 20.60 20.70 20.90	10731 10603 10476 10349 10222 10097 9971 9846 9722 9598	10718 10590 10463 10336 10210 10084 9959 9834 9709 9586	10705 10578 10578 10450 10323 10197 10071 9946 9821 9697 9573	10692 10565 10438 10431 10185 10059 9934 9809 9685 9561	1 0680 1 0552 1 0425 1 0298 1 01 72 1 0046 9921 9796 9672 9549	10667 10539 10412 10286 10159 10034 9909 9784 9660 9536	10654 10527 10527 10373 10147 10021 9896 9876 9648 9524	10641 10514 10387 10260 10134 10009 9884 9759 9635 9512	10629 10501 10374 10248 10122 9997 9871 9747 9623 9499	10616 10488 10361 10235 10109 9984 9859 9734 9610 9487
21.00 21.10 21.20 21.30 21.50 21.50 21.60 21.70 21.80 21.90	9475 9352 9229 9107 8986 8864 8744 8604 8504	9462 9339 9217 9095 8973 88732 8612 8612 8492 8373	9450 9327 9205 9083 8961 8840 8720 8600 8480 8361	9438 9315 9192 9071 8949 8828 8708 8588 8588 8468 8349	9425 9303 9180 9058 8937 8816 8696 8576 8456 8337	9413 92968 91446 9925 8884 8684 8564 8325	9401 9278 9156 9034 8913 8792 8652 8432 8313	9388 9266 9144 9022 8901 8780 8660 8540 8420 8301	9376 9254 9131 9010 8889 8768 8528 8408 8290	9364 9241 9119 8998 8877 8756 8636 8516 8397 8278
22.00 22.10 22.30 22.30 22.50 22.50 22.50 22.50 22.50 22.50 22.50	8266 8147 8029 7912 7795 7678 7562 7446 7330 7215	8254 8136 8018 7900 7783 7666 7550 7434 7319	8242 8124 8006 7888 7771 7655 7538 7423 7307 7192	8230 8112 7994 7877 7760 7643 7527 7411 7296 7181	8218 8100 7982 7865 7748 7631 7515 7400 7284 7169	8207 8088 7971 7853 7736 7620 7504 7388 7273 7158	8195 8077 7959 7841 7725 7608 7492 7377 7261 7146	8183 8065 7947 7830 7713 7597 7481 7365 7250 7135	8171 8053 7935 7818 7701 7585 7469 7353 7238 7124	8159 8041 7924 7806 7690 7573 7457 7342 7227

P, in. Hg	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
23.00 23.10 23.20 23.30 23.40 23.40 23.60 23.60 23.80 23.90	7101 6986 6873 6759 66533 6421 6309 6198 6087	7089 6975 6861 6748 6635 6522 6410 62198 6187 6076	7078 6964 6850 6737 6624 6511 6399 6176 6176	7066 6952 6839 6725 6612 6500 6388 6276 6164 6053	7055 6941 6827 6714 6601 6488 6376 6265 6153 6042	7044 6929 6816 6703 6590 6477 6365 6253 6142 6031	7032 6918 6804 6691 6578 6466 6354 6131 6020	7021 6907 6793 6680 6567 6455 6343 6231 6120 6009	7009 6895 6782 6669 6556 6444 6332 6220 6109 5998	6998 6884 6770 6657 6545 6432 6329 6299 5987
24.00 24.10 24.20 24.30 24.50 24.50 24.70 24.780 24.90	5976 5866 5756 5547 5428 5319 5219 52103 4996	5965 5985 5985 55745 5543 5543 5090 50985	5954 5844 57344 55615 554097 51087 51082 4974	5943 5832 5723 5613 55104 5395 5287 5179 5179 4963	5932 5821 5712 5602 5493 5346 5166 5166 4953	5921 5810 5701 55492 5373 52657 51549 4942	5910 5799 5690 5471 5363 5254 5146 5139 4931	5899 5788 5679 55460 5352 52135 5128 4921	5888 5777 5668 5558 5341 5233 5125 5017 4910	5877 5767 56548 5439 5330 5222 5114 4899
25.20 25.20 25.20 25.50 25.50 25.70 25.70 25.70 25.70	4888 4782 4675 4569 4458 4258 4144 41044 3939	4878 4771 4665 4553 4347 4242 4138 4033 3929	4867 4760 4654 4548 4442 4337 42327 4023 3919	4856 4750 4643 4532 4326 4221 4117 4012 3908	4846 4739 4633 4527 4421 4316 4211 4106 4002 3898	4835 4728 4622 4516 4411 4305 4206 3992 3888	4824 4718 4612 4506 4295 4190 4085 3981 3877	4814 4707 4601 4495 4390 4284 4179 4075 3971 3867	4803 4696 4590 4379 4274 4169 4064 3960 3856	4792 4586 4580 4368 4263 4159 4054 3950 3846
26.10 26.20 26.30 26.40 26.50 26.70 26.70 26.90	3836 3732 3629 3526 3422 33220 3118 3017 2916	3825 3722 3619 3516 3414 3311 3210 3108 3007 2906	3815 3712 3609 3506 3403 3301 3199 3098 2997 2896	3805 3701 3598 3495 3393 3291 3189 3987 2987 2886	3794 3691 3368 3485 3383 3281 3179 3078 2976 2876	3784 3681 3578 3475 3373 3271 31667 2966 2866	3774 3670 3567 3465 3462 3260 3159 3057 2956 2855	3763 3660 3557 3454 3352 3250 3149 3047 2946 2845	3753 3650 35447 3444 3342 3240 3138 3037 2936 2835	3743 3639 3537 3434 3332 3230 3128 3027 2926 2825
27.00 27.10 27.20 27.30 27.40 27.50 27.60 27.70 27.80 27.90	2815 2715 2615 2516 2216 2218 22118 21121 2123	2805 2705 2605 2505 2406 2307 2208 2109 2011	2795 2695 2595 2496 2297 2198 2001 1903	2785 2685 2585 2486 2287 2188 2981 1893	2775 2675 2575 2475 2376 22178 2080 1981 1884	2765 2665 2565 2465 2366 2267 2168 2070 1972 1874	2755 2655 2555 2455 2456 2257 2156 2060 1962 1864	2745 2645 25445 23445 2247 2149 21952 1854	2735 2635 2535 2435 2336 2237 2139 2040 1942 1844	2725 2625 2525 2426 2327 2129 2030 1932 1835
28.20 28.20 28.40 28.40 28.60 28.60 28.60 28.60 28.80	1825 1727 1630 1533 1437 1340 1244 1149 1053 958	1815 1718 1621 1524 1427 1331 1235 1139 1044 948	1805 1708 1611 1514 1417 1321 1225 1129 1034 939	1796 1698 1601 1504 1408 1312 1216 1120 1024 929	1786 1689 1592 1495 1392 1206 1110 1920	1776 1679 1582 1485 1389 1292 1196 1101 1005 910	1766 1669 1572 1475 1379 1283 1187 1091 996	1757 1659 1562 1466 1369 1273 1177 1082 986 891	1747 1650 1553 1456 1360 1264 1168 1072 977 882	1737 1640 1543 1446 1350 1254 1158 1063 967 872
29.00 29.10 29.20 29.30 29.50 29.50 29.70 29.80 29.90	863 768 674 579 486 392 298 205 112	853 759 664 570 476 382 289 196 103	844 749 655 561 467 373 280 187 94	834 740 645 551 457 364 270 177 84 -8	825 730 6342 448 3261 168 75	815 721 627 532 439 345 252 159 -27	806 711 617 523 429 336 242 149 -36	796 702 608 514 426 233 140 47 -45	787 693 598 504 411 317 224 131 38 -54	778 683 589 495 401 308 215 122 -64
30.00 30.10 30.20 30.30 30.50 30.50 30.60 30.70 30.80 30.90	-73 -165 -257 -3440 -531 -622 -713 -893	-82 -174 -266 -358 -449 -540 -631 -722 -812 -902	-91 -183 -275 -367 -458 -549 -640 -731 -911	-100 -193 -284 -376 -467 -558 -649 -740 -830 -920	-110 -294 -294 -385 -476 -568 -658 -659 -839 -929	-119 -211 -303 -394 -486 -577 -667 -758 -848 -938	-128 -220 -312 -403 -495 -586 -676 -857 -947	-137 -229 -321 -413 -595 -686 -776 -866 -956	-147 -238 -332 -513 -604 -6785 -875 -965	-156 -248 -339 -431 -522 -613 -704 -794 -884 -974
31.00 31.20 31.30 31.40 31.50 31.70 31.80 31.90	-983 -1073 -1163 -1252 -1341 -1430 -1518 -1607 -1695 -1783	-792 -1082 -1172 -1250 -1350 -1439 -1527 -1616 -1792	-1001 -1091 -1181 -1279 -1359 -1448 -1536 -1624 -1713 -1800	-1010 -1100 -1189 +1279 -1368 -1456 -1545 -1633 -1721 -1809	-1019 -1109 -1198 -1277 -1465 -1554 -1554 -11642 -1730 -1818	-1028 -1118 -1207 -1297 -1385 -1474 -1561 -1739 -1827	-1037 -1127 -1216 -1305 -1394 -1483 -1571 -1660 -1748 -1836	-1046 -1136 -1225 -1314 -1403 -1492 -1580 -1669 -1757 -1844	-1055 -1145 -1234 -1323 -1412 -1501 -1589 -1677 -1765 -1853	-1064 -1154 -1243 -1332 -1421 -1510 -1598 -1686 -1774 -1862
32.00 32.10 32.20 32.30 32.40 32.50 32.60 32.70 32.90	-1871 -1958 -2045 -2132 -2132 -2306 -2392 -2478 -2650	-1879 -1967 -2054 -2141 -228 -2314 -2401 -2487 -2573 -2659	-1888 -1976 -2063 -21537 -21237 -2323 -2409 -2496 -2581 -2667	-18984 -1984 -2071 -21245 -22332 -22104 -22590 -2676	-1906 -1993 -2080 -2164 -22340 -2427 -2519 -2684	-1914 -2002 -2089 -2176 -2163 -2349 -2435 -2607 -2607 -2693	-1923 -2010 -2098 -2184 -2271 -2358 -2444 -2530 -2616 -2701	-1932 -2019 -2106 -2193 -2286 -2366 -24539 -2624 -2710	-1941 -2028 -2115 -2215 -2288 -2375 -2461 -2547 -2633 -2719	~1949 ~2037 ~2124 ~2211 ~2297 ~2384 ~2470 ~2556 ~2641 ~2727

TABLE X - Concluded

P, in. Hg	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
33.00 33.10 33.20 33.30 33.40 33.50 33.60 33.70 33.80 33.90	-2736 -2821 -2906 -2991 -3076 -3160 -3244 -3329 -3496	-2744 -2829 -2915 -2999 -3084 -3169 -3253 -3337 -3421 -3504	-2753 -2838 -2923 -3008 -3093 -3177 -3261 -3345 -3345 -3513	-2761 -2846 -2932 -3016 -3101 -3185 -3270 -3354 -3438 -3521	-2770 -2855 -2940 -3025 -3194 -3278 -3362 -3446 -3530	-2778 -2864 -2949 -3033 -3118 -3102 -3287 -3371 -3371 -3454 -3538	-2787 -2872 -2957 -3042 -3126 -3211 -3295 -3379 -3364	-2795 -2881 -2965 -3050 -3159 -3219 -3303 -3387 -3471 -3555	-2804 -2889 -2974 -3059 -3143 -3228 -3312 -3396 -3479 -3563	-2812 -2898 -2982 -3067 -3152 -3236 -3320 -3404 -3488 -3571
34.00 34.10 34.20 34.30 34.40 34.50 34.60 34.70 34.80 34.90	-3580 -3663 -3746 -3829 -3912 -3994 -4076 -4159 -4240 -4322	-3588 -3671 -3754 -3837 -3920 -4085 -4167 -4249 -4230	-3596 -3680 -3763 -3845 -3928 -4011 -4093 -4175 -4257 -4239	-3605 -3688 -3771 -3854 -3936 -4019 -4101 -4183 -4265 -4347	-3613 -3696 -3779 -3862 -3945 -4029 -4191 -4273 -4355	-3621 -3704 -3787 -3870 -3953 -40138 -4200 -4281 -4363	-3630 -3713 -3796 -3879 -3961 -4044 -4126 -4208 -4208 -4371	-3638 -3721 -3804 -3887 -3969 -4952 -4134 -4216 -4279 -4379	-3646 -3729 -3815 -38978 -40642 -41244 -4306	-3655 -3738 -3821 -3903 -3986 -4068 -4150 -4232 -4314 -4396

P, in. Hg	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
35.0 367.0 37.0 39.0 41.0 42.0 43.0	-4404 -5209 -5996 -6767 -7521 -8260 -8983 -9693 -1038	-4485 -5289 -6074 -6843 -7595 -8333 -9055 -9763 -10458	-4566 -5368 -6152 -6919 -7670 -8405 -9126 -9833 -10527	-4647 -5447 -6229 -6995 -7744 -8478 -9198 -9903 -10595	-4728 -5526 -6307 -7070 -7818 -8551 -9269 -99764 -11342	-4809 -5605 -6384 -7146 -7892 -8623 -9340 -10043 -10743 -11409	-4889 -5684 -6461 -7221 -7966 -8696 -9411 -10112 -10800 -11476	-4969 -5762 -6537 -7296 -8040 -8768 -9482 -10182 -10869 -11543	-5049 -5840 -6614 -7371 -8113 -8840 -9552 -10251 -10937 -11610	-5129 -5919 -6691 -7446 -8186 -8912 -9623 -10320 -11004 -11676
45.0 45.0 47.0 48.0 49.0 50.0 51.0	-11743 -12402 -13049 -13685 -14310 -14926 -15531 -16127	-11809 -12467 -13113 -13748 -14372 -14987 -15591 -16186	-11876 -12532 -13177 -13811 -14434 -15047 -15651 -16245	-11942 -12597 -13241 -13874 -14496 -15108 -15711 -16304	-12008 -12662 -13305 -13936 -14558 -15169 -15770 -16363	-12074 -12727 -13368 -13999 -14619 -15230 -15830 -16421	-12139 -12791 -13432 -14061 -14681 -15290 -15890 -16480	-12205 -12856 -13495 -14124 -14742 -15350 -15949	-12271 -12920 -13559 -14186 -14803 -15411 -16008	-12336 -12985 -13622 -14248 -14865 -15471 -16068

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